

FINAL
SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN
AND
INSTALLATION SPILL CONTINGENCY PLAN
FORT SAM HOUSTON
SAN ANTONIO, TEXAS

Prepared for
U.S. ARMY CORPS OF ENGINEERS
TULSA DISTRICT

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June 2003

PLAN CERTIFICATION

I hereby certify that I have examined the facility and, being familiar with the provisions of 40 *Code of Federal Regulations* (CFR) Part 112, attest that this Spill Prevention Control and Countermeasures Plan (SPCCP) has been prepared in accordance with good engineering practices.

Printed Name of P.E.

Registration Number

Signature of P.E.

Date

MANAGEMENT APPROVAL

The following plan meets the requirements of the Spill Prevention Control and Countermeasure Plan regulations under 40 CFR Part 112, has full approval of management, under the authority shown on the letter following this page, and will be implemented as herein described.

Garrison Commander

Signature

Date

40 CFR 112 CROSS REFERENCE INDEX TO TABLE OF CONTENTS FOR SPCCP

Regulatory Guidance - 40 Code of Federal Regulations (CFR)		Corresponding Section in Fort Sam Houston SPCCP
FINAL RULE	Sequence Outline for SPCCP	
112.1	Completely buried storage tanks; wastewater treatment	Section 5.2.2, Appendix C
112.3	PE certification; plan @ facility and available for review	Section 1.1, Section 1.2
112.4	Spill history	Section 7.0
112.5	Amendments to plan; review of plan every 5 years	Section 1.2
§ 112.7	General requirements for SPCC Plans for all facilities and all oil types.	Cross Reference Table
§ 112.7(a)	General requirements; discussions of facility's conformance with rule requirements; deviations from Plan requirements; facility characteristics that must be described in the Plan; spill reporting information in the Plan; emergency procedures.	Section 1.1, Section 1.2, Section 2.1, Section 2.2, and Section 2.3
§ 112.7(b)	Fault analysis	Section 3.3, Section 3.4, Exhibit 5-1, Figure 3-2, and Figure 3-3
§ 112.7(c)	Secondary containment	Section 5.0
§ 112.7(d)	Contingency planning	Section 4.0, Section 6.1.1, and Section 6.1.2. Section 3.0, Section 4.0 and Section 5.0 of ISCP
§ 112.7(e)	Inspections, tests, and records	Section 6.1 and Section 6.3
§ 112.7(f)	Employee training and discharge prevention procedures	Section 6.2
§ 112.7(g)	Security (excluding oil production facilities)	Appendix C in Facility Specific Plans

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§ 112.7(h)	Loading/unloading (excluding offshore facilities)	Section 5.4
§ 112.7(i)	Brittle fracture evaluation requirements	Section 6.1
§ 112.7(j)	Conformance with State requirements	Section 2.2 and Section 2.3
§ 112.8 § 112.12	Requirements for onshore facilities (excluding production facilities).	
§ 112.8(a), § 112.12(a)	General and specific requirements	Cross Reference Table
§ 112.8(b), § 112.12(b)	Facility drainage	Section 3.3, Section 3.4, Section 3.5, and Figure 3-3
§ 112.8(c), § 112.12(c)	Bulk storage containers	Section 5.0, Section 5.2, Exhibit 6-1, Exhibit 6-2, and Exhibit 6-3

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LIST OF ACRONYMS AND ABBREVIATIONS

AAFES	Army and Air Force Exchange Service
AMED	Army MedCom
AR	Army Regulation
AST	aboveground storage tank
BAMC	Brooke Army Medical Center
BFE-C	Business Center of Fire and Environment-Compliance
CABC	Directorate of Community Activities Business Center
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHEMTREC	Chemical transportation Emergency Center
CLRA	Canyon Lake Recreation Area
CWA	Clean Water Act
DOD	Department of Defense
DPS/PMO	Department of Public Safety
DSEF	Directorate of Safety, Environment, and Fire
EHS	Extremely hazardous substances
EO	Executive Order
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning & Community Right-to-Know
ETIS	Environmental Technical Information System
FFCA	Federal Facilities Compliance Act
FSH	Fort Sam Houston
HAZMAT	hazardous material
HAZWOPER	Hazardous Waste Operations
HS	hazardous substance
HVAC	Heating, Ventilating, and Air Conditioning
HW	hazardous waste
IC	Incident Commander
IIRT	Initial Installation Response Team
IOSC	Installation On-Scene Commander

LIST OF ACRONYMS AND ABBREVIATIONS (CONT.)

IRT	Installation Response Team
ISCP	Installation Spill Contingency Plan
LEPC	Local Emergency Planning Committee
MOGAS	Motor Gasoline
NCP	National Contingency Plan
NIOSH	National Institute for Occupational Safety and Health
NRC	National Response Center
OHMTADS	Oil and Hazardous Materials Technical Assistance Data System
OPA	Oil Pollution Act
OPP	Oil Pollution Plan
OSHA	Occupational Safety and Health Act
PCB	Polychlorinated Biphenyls
PE	Professional Engineer
POL	petroleum, oil, or lubricant
PPE	personal protective equipment
PWBC	Directorate of Public Works Business Center
RCRA	Resource Conservation and Recovery Act
RLBC	Directorate of Readiness and Logistic Center
RQ	reportable quantity
RRC	Railroad Commission of Texas
RSC	Reserve Support Command
SARA	Superfund Amendments and Reauthorization Act
SAS	Satellite Accumulation Site
SCBA	Self Contained Breathing Apparatus
SCS	Soil Conservation Society
SERC	State Emergency Response Commission
SERO	Senior Emergency Response Officer
SJA	Staff Judge Advocate
SPCCP	Spill Prevention, Control, and Countermeasures Plan
SWRO	Southwest Regional Office
TAC	Texas Administrative Code

LIST OF ACRONYMS AND ABBREVIATIONS (CONT.)

TCEQ	Texas Commission of Environmental Quality
TERC	Texas Emergency Response Center
U.S.C.	United States Code
USCG	United States Coast Guard
USDOD	U.S. Department of Defense
USGS	United States Geological Survey
UST	underground storage tank

DEFINITIONS

CERCLA is the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986.

CODE OF FEDERAL REGULATIONS (CFR) is a compilation of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government of the United States of America. The CFR, which is compiled by the Office of the *Federal Register*, is divided into 50 titles, which cover broad areas subject to Federal regulation.

CLEANUP OPERATION per Occupational Safety and Health Act (OSHA) 29 CFR 1910.120 is an operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleaned up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment.

DISCHARGE OR SPILL is an act or omission by which oil, hazardous substances, or other substances in harmful quantities (see definition) are spilled, leaked, pumped, poured, emitted, entered, or dumped onto or into waters in the State, or by which those substances are deposited where, unless controlled or removed, they may drain, seep, run, or otherwise enter water in the state, whether done accidentally or intentionally. The term shall not include any discharge that is authorized by a permit issued pursuant to federal or state law. Discharge or spill also means threat of discharge or spill.

EMERGENCY RESPONSE CORRESPONDING TO EMERGENCIES per OSHA 29 CFR 1910.120, means a response effort by employees from outside the immediate release area or by other designated responders such as mutual-aid groups or area fire departments to an occurrence that results, or is likely to result, in an uncontrolled release of hazardous substance. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area or by maintenance personnel are not considered to be emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is no potential safety or

DEFINITIONS (CONT.)

health hazard are not considered to be emergency responses (i.e., fire, explosion, or chemical exposure).

ENVIRONMENT, as defined by Section 101(8) of CERCLA, means the navigable waters of the United States and any other surface water, groundwater, drinking water supply, land surface, or subsurface strata or ambient air within the United States or under the jurisdiction of the United States.

EXTREMELY HAZARDOUS SUBSTANCES (EHS) are substances promulgated in 40 CFR 355, Appendix A and are listed in the consolidated chemical list in Appendix B, Oil Pollution Plan (OPP)/SPCC Facility Response Plan as Section 302 Chemicals.

FUEL is a flammable, combustible liquid of any kind, including but not limited to gasoline, JP-8, diesel, and naptha. Class I (Minor), Class II (Medium), and Class III (Major) fuel spills are defined as follows: Class I or Minor fuel spills involve an area less than 2 feet in any dimension and are not of a continuing nature. Class II or Medium fuel spills are larger than Class I spills and are less than 10 feet in any dimension, or not over 50 square feet in area, and are not of a continuing nature. Class III or Major fuel spills include spills that are over 10 feet in any one dimension, over 50 square feet in total area, or are of a continuing nature.

HARMFUL QUANTITY (as defined by Texas Commission on Environmental Quality (TCEQ) in the October 1988 State of Texas Oil and Hazardous Substances Spill Contingency Plan) is any quantity of a hazardous substance discharge or spill that is determined to be harmful to the environment, or public health or welfare, or may reasonably be anticipated to present an imminent and substantial danger to the public health or welfare, by the administrator of the U.S. Environmental Protection Agency (EPA) pursuant to federal law; and that quantity or concentration of a hazardous substance or other substance that is toxic, corrosive, ignitable, reactive, or oxygen demanding (biological or chemical) or that exhibits another factor or factors which the Executive Director of the TCEQ or his/her designee determines is causing or may cause pollution or harm to the environment or the public welfare. A harmful quantity of oil is 5

DEFINITIONS (CONT.)

or more barrels (210 gallons) except where spilled into navigable waters of the State when any quantity is considered harmful.

HAZARDOUS MATERIAL (HAZMAT) include hazardous substances, petroleum products, natural/synthetic gas, acutely toxic chemicals, and other toxic chemicals.

HAZMAT TEAM is a team of firefighters trained and equipped in accordance with 29 CFR 1910.120(q) that has the lead responsibility to respond to chemical spills/releases and to contain spilled material. The team's primary responsibility is to safely contain the substance and spill area, identify the substance, and coordinate the spill/incident response.

HAZARDOUS SUBSTANCE (HS) is any substance designated as such by the Administrator of the EPA pursuant to CERCLA (40 CFR 302), regulated pursuant to Section 311 of the Clean Water Act (CWA), or designated as such by the TCEQ.

HAZARDOUS WASTE (HW) is any solid waste identified or listed as a hazardous waste by the Administrator of the EPA in 40 CFR 261, Subparts C and D. The characteristics of hazardous wastes are identified in 40 CFR 261 Subpart C and 40 CFR 261 Subpart D identifies those wastes listed as hazardous.

HEALTH HAZARD PER OSHA 29 CFR 1910.120 is defined as a chemical, mixture of chemicals, or a pathogen for which statistically significant evidence, based on at least one study conducted in accordance with established scientific principles, that may cause acute or chronic health effects in exposed employees. The term "health hazard" includes chemicals that are carcinogens; toxic or highly toxic agents; reproductive toxins; irritants; corrosives; sensitizers; hepatotoxins; nephrotoxins; neurotoxins; agents that act on the hematopoietic system; and agents that damage the lungs, skin, eyes, or mucous membranes. A "health hazard" may also include stress due to external temperature extremes. Further definition of the terms used above can be found in Appendix A to 29 CFR 1910.1200.

DEFINITIONS (CONT.)

INSTALLATION ON-SCENE COMMANDER (IOSC) is the person, usually the Directorate of Safety, Environment, and Fire (DSEF) or his designee, is responsible for directing and coordinating all logistical and administrative actions during an oil and/or HAZMAT release response. The IOSC shall be fully trained in accordance with 29 CFR 1910.120 (q).

INSTALLATION RESPONSE TEAM (IRT) serves as the regional body for planning and preparedness actions prior to a response action and for coordination and advice during such action. The IRT consists of regional representatives of the participating agencies and representatives of state governments (and local governments as agreed upon with the state).

NATIONAL RESPONSE CENTER (NRC) is the EPA central notification office for all reportable spills, as defined by federal regulations. The 24-hour telephone number is (800) 424-8802.

OIL is defined as oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. TCEQ policy states the reportable quantity for oil is 5 barrels (210 gallons) released to the land and any quantity that produces a sheen to water. Oil releases are classified as Minor, Medium, or Major according to the following definitions that do not reflect the degree hazard of the release. A Minor release is a discharge to navigable waters of the state of less than 1,000 gallons of oil. A Medium release is a discharge of 1,000 to 10,000 gallons of oil to navigable waters of the state. A Major discharge of more than 10,000 gallons of oil to navigable waters of the state.

OIL POLLUTION ACT (OPA) was established in 1990 establishing that the owner or operator of a facility from which oil is discharged (also known as the responsible Party) is liable for the costs associated with the containment or cleanup of the spill and any damages resulting from the spill.

RELEASE, as defined by Section 101(22) of CERCLA, is any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing

DEFINITIONS (CONT.)

into the environment, but excludes (a) any release that results in exposure to persons solely within a workplace; (b) emissions from engine exhaust; (c) release of source, byproduct, or special nuclear material from a nuclear incident; (d) the normal application of fertilizer; and (e) activities authorized by TCEQ.

REPORTABLE QUANTITY (RQ), as defined in 40 CFR 117.1(a) and codified in CERCLA, means the quantity of hazardous substance determined to be harmful by EPA. A discharge into the environment equal to or greater than the RQ must be reported to the NRC and other appropriate local, state, and federal agencies. RQs are provided in Appendix B.

REPORTABLE SPILL is a discharge or release into the environment that requires reporting to local, state and federal agencies based on the amount spilled (reportable quantity) and degree of danger or threat to the environment/public health. Public Works should notify appropriate local, state and federal agencies of all reportable spills. Notification should be coordinated with the Incident Commander (IC), IOSC, Staff Judge Advocate, and Public Affairs.

SPILL. See Discharge.

TEXAS EMERGENCY RESPONSE CENTER (TERC) is the central notification office in Texas for reports of any spill of a harmful quantity of oil and hazardous substance or other substances or of a release or threatened release. The 24-hour telephone number is (512) 463-7727 or (800) 832-8224. During duty hours, notification will be made to the TCEQ Region 13 Office at (210) 490-3096.

REFERENCES

Federal Laws and Regulations

- Rivers and Harbors Act of 1899, 33 United States Code (U.S.C.) § 401.
- National Environmental Policy Act of 1969, as amended, 42 U. S. C. §§ 4321 to 4370d.
- Federal Water Pollution Control Act as amended by the Clean Water Act of 1977, 33 U.S.C. §§ 1251 to 1387.
- Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §§ 136 to 136y.
- Federal Oil Pollution Act, 33 U.S.C. §§ 2701 to 2761.
- Pollution Prevention Act, 42 U.S.C. §§ 13101 to 13109.
- Toxic Substances Control Act, 15 U.S.C. §§ 2601 to 2692.
- Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 to 6992k.
- Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 to 9675.
- Environmental Protection Agency, Polychlorinated Biphenyls (PCBs): Manufacturing Process, Distribution in Commerce, and Use Prohibitions, 40 CFR Part 761.65, Storage for Disposal.
- Environmental Protection Agency, Hazardous Waste Management System: General 40 CFR Part 260.
- Environmental Protection Agency, Identification and Listing of Hazardous Waste, 40 CFR Part 261.
- Environmental Protection Agency, Standards Applicable to Generators of Hazardous Waste, 40 CFR Part 262.
- Environmental Protection Agency, Designation, Reportable Quantities and Notification, 40 CFR Part 302.
- Environmental Protection Agency, Oil Pollution Prevention, 40 CFR Part 112.
- Environmental Protection Agency, National Oil and Hazardous Substance Pollution Contingency Plan, 40 CFR Part 300.
- Federal Facilities Compliance Act, dated 22 September 1992.

State Laws

- State of Texas, Oil and Hazardous Substance Spill Prevention and Control, *Texas Water Code* §§ 26.262 to 26.268.
- Texas Commission on Environmental Quality, Oil and Hazardous Substances, Title 30 *Texas Administration Code* (TAC) §§ 343.1 to 343.2.
- Texas Commission on Environmental Quality, Industrial Solid and Municipal Hazardous Waste, Title 30 TAC, §§ 335.1 to 335.569.
- Texas Commission on Environmental Quality, Underground and Aboveground Storage Tanks, Title 30 TAC, §§ 334.1 to 334.560.
- State of Texas, Solid Waste Disposal Act, Article 4477-7.

Executive Order (EO)

- EO 12088, Federal Compliance with Pollution Control Standards, 13 October 1978.
- EO 11514, Protection and Enhancement of Environmental Quality, 5 March 1970.
- EO 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Regulations, 4 August 1993.

Department of Defense (DOD)

- DOD Instruction 4120.14, Air and Water Pollution Control, 14 May 1971.
- DOD Directive 5030.41, Implementation of National Oil and Hazardous Substance Pollution Contingency Plan, 3 October 1972.
- DOD Directive 5100.50, Protection and Enhancement of Environmental Quality, 24 May 1973.

Department of the Army

- Army Regulation (AR) 200-1, Environmental Protection and Enhancement, 21 March 1997.
- AR 200-2, Environmental Effects of Army Actions, 23 April 1990.
- AR 420-47, Solid Waste Management, March 1994.
- AR 420-76, Installation Pest Management Plan, 24 September 1992.
- Regulatory Guidance for Fuel Tanker Trucks at Army Facilities, Draft-May 2001.

Fort Sam Houston (FSH)

- FSH 385-10, Safety & Occupational Health Program.
- BAMC Memo 40-48, Hazardous Waste Management Program

1. PLAN REVIEW AND UPDATE

1.1 PLAN REVIEW

This Spill Prevention, Control, and Countermeasures Plan (SPCCP) shall be reviewed every 5 years from the date of acceptance, in accordance with 40 CFR 112. Documentation of the review and evaluation must be available for review, if requested.

1.2 PLAN AMENDMENT

In accordance with 40 CFR 112.5, the plan shall be amended if a more effective prevention and control technology is available and if such technology will significantly reduce the likelihood of release from the installation or if such technology has been field proven at the time of review. Subsequent revisions or additions to the SPCCP shall be made within 6 months of the review and certified by a Professional Engineer licensed in the State of Texas. Only those amendments that have not been superseded by more recent amendments shall be retained.

The SPCCP and Installation Spill Contingency Plan (ISCP) shall be reviewed and amended under any of the following circumstances:

- Applicable regulations are revised.
- The plan fails in an emergency.
- The list of emergency coordinators changes.
- The list of emergency equipment changes.

SPCCP and ISCP amendments shall be certified by a Texas Professional Engineer (PE) under any of the following circumstances:

- The installation changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, spills, or releases of oil, hazardous waste, or hazardous waste constituents, or the installation changes the response necessary in an emergency.

- The EPA regional administrator or TCEQ finds that the plan does not meet regulatory requirements or that an amendment to this plan is necessary to prevent and contain releases from the installation.

The amendment shall be written within six (6) months after a modification becomes operational.

A record of each revision shall be documented on the form provided as Exhibit 1-1 and stored as Appendix A. Copies of any such revisions to the SPCCP and ISCP shall be supplied to the appropriate federal, state, and local authorities, as requested.

To make a revision to this plan, perform the following:

- Insert the new page(s).
- Remove the old page(s).
- Enter the revision on a copy of the Exhibit 1-1 and place in Appendix A.

**EXHIBIT 1-1
RECORD OF REVISIONS**

Revision Number	Date	Comments	Signature and Organization of Individual Making Revision

2. INTRODUCTION

This SPCCP establishes procedures and guidance for the prevention, detection, and response to spills of oils or hazardous substances at Fort Sam Houston (FSH), Texas. Additionally, an ISCP has been developed that specifies procedures when responding to releases, accidents, and spills involving oils or hazardous substances. A separate plan exists for Camp Bullis and Canyon Lake Recreational Area (CLRA), both of which come under the command and operation of Fort Sam Houston.

2.1 OVERALL MISSION

The FSH SPCCP is intended to provide preplanning to protect human health and life and to minimize environmental damage and mission impact in the event of a hazardous material (HAZMAT) release. This plan (SPCCP/ISCP) provides guidance for discovering and reporting HAZMAT releases and establishes training requirements for personnel to contain, cleanup, and restore the environment after HAZMAT releases.

This plan fulfills the requirements as detailed in AR 200-1 for an SPCCP/ISCP. Additionally, this plan fulfills the requirements of the National Contingency Plan (NCP) requiring federal agencies to plan for emergency response to spills of oil and hazardous substances for which they are responsible. As mandated by AR 200-1, it is Army policy to provide for prompt, effective response to contain and cleanup spills that may occur. The plan establishes responsibilities, duties, procedures, and resources to be employed to contain, mitigate, and cleanup oil and hazardous substance spills at FSH.

2.2 APPLICABILITY

The plan is applicable to the following:

- FSH proper.
- All active, semiactive, and Army Reserve units located on or utilizing the facilities at FSH proper.

- National Guard units located on or utilizing FSH proper.
- Contractors and lessees located on or utilizing FSH proper.
- Any federal, state, regional, or local governmental or nongovernmental agencies and private or public agencies or organizations who utilize FSH proper for any organized or individual actions, projects, or activities.

2.3 REGULATORY REQUIREMENTS

Guidelines for development of an SPCCP to address oil spill are provided in 40 CFR 112. This regulation establishes procedures, methods, and equipment to prevent discharge of oil from non-transportation-related facilities into surface waters. The Resource Conservation and Recovery Act (RCRA) Regulation 40 CFR 264.52, and AR 200-1 expand the scope of the SPCCP to incorporate hazardous waste (HW), as defined in 40 CFR 261, and hazardous substances (HS), as defined in 40 CFR 302.3, respectively.

Executive Order 12088 mandates federal compliance with pollution standards. It directs that U.S. Department of Defense (USDOD) installations comply with Emergency Planning & Community Right-to-Know (EPCRA) regulations, as appropriate. Under Superfund Amendments and Reauthorization Act (SARA) Title III, Section 304, FSH shall provide immediate notification to the Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission (SERC) if there is a discharge or release of a harmful quantity of a HS (40 CFR 302.4) that exceeds the reportable quantity (RQ) for that substance. Appendix B contains a comprehensive list of compounds and hazardous wastes designated as hazardous substances under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This list shall be used to determine which spills must be reported within 24 hours, which is required if there is a release equal to or greater than the final RQ designated for each substance.

The Federal Facilities Compliance Act (FFCA) of 1992 waives the sovereign immunity of federal facilities, including USDOD installations, with regard to enforcement actions taken by states and/or the EPA. The FFCA mandates enforcement of RCRA and its implementing regulations governing hazardous waste management at federal facilities. FFCA requires annual facility inspections; provides for fines and administrative orders against federal facilities; and, although it

protects government employees from civil penalties, allows prosecution of government employees for violation of federal and state hazardous waste laws.

A discharge or spill is defined by 30 TAC 327.2(3), as "an act or omission by which oil, hazardous substances or other substances in harmful quantities are spilled, leaked, pumped, poured, emitted, entered, or dumped onto or into waters in the state of Texas or by which those substances are deposited where, unless controlled or removed, they may drain, seep, run or otherwise enter water in the state of Texas." The term 'discharge or spill' shall not include any discharge that is authorized by a permit issued pursuant to federal law or any law of the state of Texas or that is regulated, with the exception of transportation spills and spills in coastal waters, by the Railroad Commission of Texas (RRC).

An indoor spill of oil onto the floor is not considered a spill "into the environment" provided that the spill is wholly contained indoors. However, if a portion of the spilled substance enters the environment (e.g., by seeping into the ground or spilling into the storm sewer system), it is considered a release into the environment; if it were released in a quantity greater than the reportable quantity or in a harmful quantity for that substance, the release shall be reported to the appropriate authorities as discussed below. Spills or leaks of nonvolatile liquids or solids onto impervious surfaces or into secondary containment areas do not require implementation of this plan. However, discharges of slug flows of oil or hazardous substances into a municipal sewer will result in endangerment or release to the environment and, therefore, require implementation of this plan.

According to the Texas Oil and Hazardous Spill Prevention and Control Act, Subchapter G, Chapter 26, *Texas Water Code*, a discharge or spill of harmful quantities means, "any quantity of hazardous substance discharge or spill which is determined to be harmful to the environment or public health or welfare, or may reasonably be anticipated to present an imminent and substantial danger to the public health or welfare by the Administrator of the EPA pursuant to federal law and by the executive director."

According to 40 CFR 110 (EPA regulations regarding the discharge of oil) and the Federal Water Pollution Control Act, Section 311(b), discharges are defined as any discharge of oil into or on the navigable waters, waters of the contiguous zone, and waters seaward of the contiguous zone, in

such quantities that violate applicable water quality standards, or cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

TCEQ further stipulates (in Title 30 of the Texas Administrative Code (TAC), Section 334.75 and 334.129) that owners and operators of aboveground or underground storage tanks shall report within 24 hours, a spill or overflow of oil that results in a release to the environment exceeding 25 gallons, or that causes a sheen on surface water. A spill of less than 25 gallons, or that cannot be cleaned up within 24 hours shall also be reported.

3. ENVIRONMENTAL SETTING - FORT SAM HOUSTON

3.1 LOCATION

FSH is located in south central Texas adjacent to the City of San Antonio. The FSH installation comprises FSH proper, Camp Bullis, and CLRA, as shown on Figure 3-1.

FSH proper contains 3,206 acres of land, not including a 80-acre national cemetery. FSH proper is located in the northeast portion of the City of San Antonio. The area is approximately 4.25 miles long and 1.5 miles wide (in its wider portions), as depicted on Figure 3-2.

3.2 DESCRIPTION OF INSTALLATION ACTIVITIES

The mission of FSH is to command, operate, and administer the resources of FSH, Camp Bullis, and CLRA to accomplish all assigned missions and to provide support to assigned, attached, satellite, and tenant units. Diverse operations at FSH include operation and maintenance of roads, buildings, offices, hospitals, and personnel housing; medical research and services; and academic and practical training. Recreational activities at FSH proper are typical of a large city parks and recreation department.

3.3 SURFACE WATER

FSH proper is drained primarily by Salado Creek, as depicted on Figure 3-3. The creek runs north to south through the eastern portion of the post and drains into the San Antonio River. Flow from FSH into the creek is primarily from surface runoff. The western part of FSH is drained by the Alamo Ditch, a tributary of the San Antonio River. The southern and central portions of FSH proper are drained by the City of San Antonio MS4 system.

FSH experiences major flooding every 3 to 4 years. During flood conditions, a large portion of the training area is flooded by water. The bridge at Binz Engleman Road, which crosses Salado Creek on the east side of FSH, is flooded during significant rains. No flooding problems are reported in the western part of FSH.

3.4 FACILITY DRAINAGE

Stormwater is routed from FSH through a series of ditches and underground storm sewers into three receiving streams. As described in Subsection 3.3, these receiving streams include Salado Creek, Alamo Ditch, and the City of San Antonio storm sewer system. Sanitary sewage is collected from each building and is routed through separate underground sewers into the City of San Antonio sanitary sewer system. The sanitary sewer also collects drainage from various laboratory floor drains, and wash racks and from maintenance and motor pool buildings that contain trench drains. Drainage from wash racks and trench drains typically is treated through oil/water separators prior to entering the City of San Antonio sanitary sewer system. Drainage from outdoor diked or curbed areas is typically stored within the containment structure until manually discharged to either the storm drainage or sanitary sewer systems.

3.5 CLIMATE

FSH experiences a modified subtropical climate. Normal mean temperatures range from a low of 50.7° F in January to a high of 84.7° F in July. The summer is hot with maximum temperatures above 90° F over 30 to 40% of the time. Weather is mild during the winter, with freezing temperatures occurring about 20 days each year.

Precipitation is distributed fairly well throughout the year, yielding an average annual rainfall of 27.54 inches. Normally, the heaviest amount of rainfall is during the months of May and June; much of this rainfall is accountable in sizeable downpours. The heaviest precipitation month on record was July 2002 with 16.93 inches in the San Antonio area, while the lowest precipitation month on record was in both August 1952 and November 1970 with 0.01 inches.

The average relative humidity is 80% in the morning and 50% in the late afternoon. Northerly winds prevail during the winter, and southeasterly winds prevail during the summer.

Figure Frame

**Figure 3-1 General Location of Fort Sam Houston and its Associated Properties in Central
Pages: 1**

Figure Frame

Figure 3-2 Site Map Fort Sam Houston

Pages: 1

Figure Frame

Figure 3-3 Surface Drainage Areas on Fort Sam

Pages: 1

4. ROLES AND RESPONSIBILITIES

The following paragraph describes the overall responsibilities of the SPCCP Team Members. Team Members consist of representatives from Directorate of Safety, Environment and Fire (DSEF) division, site managers from individual units located on FSH, the FSH Fire Department, and the FSH Directorate of Readiness Logistical Business Center (RLBC).

4.1 SPCCP RESPONSIBILITIES

The SPCCP will be managed and implemented by the DSEF. The designated responsible individual who is accountable for oil spill prevention at FSH is the Director of Safety, Environment, and Fire. He is also the designated Installation On-Scene Coordinator (IOSC) during spill events. In his absence, oil spill responsibilities will be managed by his designated backup. It is the responsibility of this person to ensure that all elements of the SPCCP are followed by the various units operating on FSH proper which store oil, hazardous waste, or hazardous substances.

A proposed list of SPCCP Team Members and responsibilities has been comprised and provided as Exhibit 4-1.

EXHIBIT 4-1
SPILL PREVENTION CONTROL AND COUNTERMEASURES
TEAM MEMBERS AND RESPONSIBILITIES

TITLE: DIRECTORATE OF SAFETY, ENVIRONMENTAL, AND FIRE

Role: Installation On Scene Coordinator (IOSC) – Lt. Col. Sanders or designated alternate

Office Phone: (210) 221-4842

Responsibilities:

- Coordinate SPCCP implementation, review, and revision.
- Coordinate and ensure that spill containment is installed for areas storing oil, hazardous waste, and hazardous substances.
- Coordinate periodic inspections of storage areas.
- Ensure that records are maintained of inspections, testing, and spill events.
- Coordinate and ensure personnel training is conducted and documented.
- Identify potential spill sites applicable under SPCC regulations and include them in the SPCCP.
- Coordinate and direct spill response activities, as described in the ISCP, for a spill whose size or nature indicates that it may escape the local area or exceed the control capabilities of the local site supervisor.
- Ensure that the SPCCP is updated and reviewed by a registered Professional Engineer.
- Provide authority as the IOSC to coordinate and direct FSH control and cleanup efforts at the scene of an Army-caused oil or hazardous substance discharge on or adjacent to FSH.
- Program and budget for personnel, materials, and equipment in support of the SPCCP. At a minimum, ensure that the plan will fulfill the spill control requirements of all applicable state and federal regulations.
- Distribute copies of the SPCCP and ISCP to each unit, command, or other entity onsite at FSH that store oil, hazardous waste, or hazardous substances.
- Maintain liaison with other commands and governmental agencies supporting this plan.

EXHIBIT 4-1
SPILL PREVENTION CONTROL AND COUNTERMEASURES
TEAM MEMBERS AND RESPONSIBILITIES (cont.)

TITLE: STAFF MEMBER - DIRECTORATE OF SAFETY, ENVIRONMENTAL, AND FIRE

Role: IOSC Alternate and Team Member – David Walker or designated alternate

Office Phone: (210) 221-4842

Responsibilities:

- Provide technical advice and supervision in training to the Installation Response Team (IRT) members.
- Ensure that inspections of storage areas are routinely conducted.
- Ensure that inspections of aboveground storage tanks are routinely conducted.
- Test the effectiveness of the Initial Installation Response Team (IIRT), the fire department, training, and of this plan through annual exercises. Utilize Exhibit 4-6, Spill Response Exercise Form, in the ISCP to evaluate the exercises.

EXHIBIT 4-1
SPILL PREVENTION CONTROL AND COUNTERMEASURES
TEAM MEMBERS AND RESPONSIBILITIES (cont.)

TITLE: SITE MANAGERS (FACILITY SPECIFIC)

Role: Team Member varies by facility. Refer to Fort Sam Houston telephone directory for specific title and phone number.

Office Phone: varies among facility

Responsibilities:

- Manage and maintain areas that store or handle oil, hazardous waste, or hazardous substances in their facility in accordance with Installation Hazardous Waste Management Plan.
- Responsible for implementing the provisions of SPCCP, which pertain to their specific facility.
- Coordinate routine inspections of underground storage tanks (USTs), aboveground storage tanks (ASTs), and satellite accumulation site (SAS) areas, where applicable.
- Coordinate cleanup of nonreportable spills within their facilities that their organization can handle without involvement of other units or outside parties.
- Report nonreportable and reportable spills to the IOSC.
- Ensure that personnel handling, storing, or transporting substances are properly trained.
- Ensure that the IOSC and members of the IRT are covered by a routine periodic medical surveillance program in accordance with 29 CFR 1910.120.
- Maintain records for each tank or container storage facility and mobile tanks, mounted on a transportation vehicle to show inspection for leaks and proper corrective action if appropriate. Comply with requirements in the Installation Hazardous Waste Management Plan for movement and storage of hazardous waste or materials.

EXHIBIT 4-1
SPILL PREVENTION CONTROL AND COUNTERMEASURES
TEAM MEMBERS AND RESPONSIBILITIES (cont.)

- Post in a conspicuous place at each storage location, the instructions to be followed and/or personnel to contact in the event of a spill.
- Post in a conspicuous place, the location of spill control material and equipment to be used in the event of a spill at each storage location.
- Ensure that personnel report any discovered spills or storage containers left in the field during training exercises.

EXHIBIT 4-1
SPILL PREVENTION CONTROL AND COUNTERMEASURES
TEAM MEMBERS AND RESPONSIBILITIES (cont.)

TITLE: FIRE CHIEF OR DESIGNATED PERSONNEL – FORT SAM HOUSTON FIRE DEPARTMENT

Role: IIRT Team Leader - Curtis Williams or designated alternate

Office Phone: (210) 221-2727

Responsibilities:

- Coordinate with the DSEF for implementation costs for materials and equipment required to respond to spills
- Review and provide comments to SPCCP.

TITLE: READINESS LOGISTICAL BUSINESS CENTER (RLBC)

Role: LTC Steve Bolint

Office Phone: (210) 221-2902

Responsibilities:

- Distribute copies of plan to all reserve component units training at FSH.

5. OVERVIEW OF HAZMAT FACILITIES

Sites at FSH that store petroleum, oil, or lubricants (POLs), HS, and/or hazardous wastes (HW) have a potential for spills to occur. These sites include areas having USTs, ASTs, or SAS that store containers of oil, hazardous waste, or hazardous substances listed in Appendix B. This section identifies potential spill sites at FSH where sufficient storage of oil, hazardous wastes, and hazardous substances exist, as defined by 40 CFR 112 and 40 CFR 302.4, to warrant specific inclusion within this SPCCP. Exhibit 5-1 lists the sites at FSH that store POLs, hazardous substances, and/or HW. Additionally, those sites that have USTs, ASTs, and/or SASs are included in this exhibit.

The following sections provide a description of the areas that may present a potential spill hazard and suggests some preventive measures that may be implemented to minimize those hazards. Facility-specific information that identifies the spill potential, spill route, safety precautions of known hazardous substances, contingency action, preventive maintenance, and security measures for each site identified in Exhibit 5-1 is provided in Appendix C. Additionally, procedures necessary for responding to a spill as required by the ISCP are included in the facility specific information.

5.1 POL, HS, AND HW STORAGE AREAS

Each major unit/site at FSH proper has a designated HW manager, who is responsible for monitoring, inspecting, reporting spills, HW accounting, handling, and storage of HW or substances. These HW managers are responsible for the preventive maintenance and inspection programs at their sites. The inspection program is described in Section 6.0. Exhibit 5-1 lists all of the facilities where POLs, HS, and HW storage are located at FSH. Facility-specific information is provided in Appendix C.

5.2 BULK STORAGE TANKS

5.2.1 Aboveground Storage Tanks

The ASTs at FSH are constructed of materials compatible with the material stored. Most of the ASTs have an acceptable form of secondary containment that provides for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation, or have drainage systems whereby spills will enter an oil-water separator. Exhibit 5-1 lists the facilities where ASTs are located, the material stored, and the tank capacities. Facility specific information is provided as Appendix C.

For the tanks that have external secondary containment, operational procedures must be in place to release collected rainwater from the containment dike. To comply with SPCC regulations, the drainage must be properly managed, as follows:

- The drain valve shall be normally sealed closed.
- Drainage water collected within the dike shall be inspected to ensure that no oil or sheen is present prior to opening the valve.
- The valve shall only be opened under authorized supervision.
- Records shall be maintained documenting the discharge.

5.2.2 Underground Storage Tanks

The USTs at FSH are constructed of materials compatible with the material stored. Construction materials include steel and fiberglass. Steel tanks have been modified to include cathodic protection on the tanks and piping. Fiberglass tanks and fiberglass piping are double-walled as a means of secondary containment. These tanks have concrete pads surrounding the fill pipe for spill protection and have an overflow shutoff valve in the fill line.

Most USTs at FSH are used to store diesel fuel for emergency power generation and, therefore, are not frequently filled or emptied. Some facilities are manned more than 12 hours a day, and these tanks are installed with high liquid level alarms with audible signals. Exhibit 5-1 lists the facilities where USTs are located at FSH. Facility specific information is provided as Appendix C.

5.2.3 Mobile Tanks

In accordance to the *Draft Regulatory Guidance for Fuel Tanker Trucks at Army Facilities*, mobile tanks shall be located so as to prevent spilled oil from reaching navigable waters. The following procedures are applicable to POL containers, including but not limited to 55-gallon drums, 600-gallon pods, and fuel bladders.

- Mobile facilities shall be positioned at least 50 meters from stored materials, buildings, parking areas, sewer inlets, drainage ditches, streams, lakes, reservoirs, or tributaries.
- A dike or ditch shall be provided to contain potential spills if essential operations require locating mobile facilities closer than 50 meters to any of the above.
- Temporary dikes shall be constructed around any fuel storage Containers such as tanks and pods that are mounted on vehicles or trailers if the storage unit will be at the location for longer than 48 hours, or will be unattended such as a temporary motor pool or will have a total combined volume in excess of 500 gallons.
- A temporary dike shall be constructed regardless of time duration or volume stored if fuel storage containers such as pods or bladders are to be located on the ground.
- Temporary dikes shall be designed to retain any fuel spills and shall consist of at least two rows of sandbags (stacked) or an earthen dike at least 12 inches in height.

Exhibit 5-1 lists all of the facilities where mobile tanks are located at FSH. Facility specific information is provided in Appendix C.

5.3 OIL TRANSFER OPERATIONS

FSH performs minimal oil transfer operations. The only transfer operations are between diesel storage tanks and emergency generators and at Brooke Army Medical Center (BAMC), from the diesel storage tanks to the boilers. Where steel lines are below ground, they are cathodically protected to minimize corrosion. Fiberglass lines are double-walled. In addition, these lines are

leak tested annually along with their associated UST. Aboveground lines are visible and are included in the inspection program.

5.4 OIL LOADING AND UNLOADING OPERATIONS

Fuel is delivered to FSH by truck, but none of the UST or AST sites currently have spill protection installed for possible spills during unloading/loading operations. To comply with the SPCC regulations under 40 CFR 112.7(h)(1), a quick drainage system shall be used for tank truck unloading areas, which would have a containment system designed to hold the maximum capacity of any single compartment of a tank truck unloaded at the facility. In addition, warning lights, physical barriers, or warning signs must be in use during unloading operations to prevent tank truck departure before complete disconnection of the transfer hoses.

EXHIBIT 5-1
HAZMAT STORED AT EACH FACILITY

6. SPCC INSPECTIONS, TRAINING, AND RECORDKEEPING

This section identifies various levels of inspections, training, and exercises as required under 40 CFR 112 to comply with SPCC regulations.

6.1 INSPECTIONS

FSH shall maintain an ongoing SPCC inspection program where structures and operating equipment important to preventing, detecting, or responding to potential environmental or human health hazards shall be inspected. This inspection program defines the types of tanks and ancillary equipment to be inspected and the types of problems that the inspection seeks to identify. The frequency of inspection is based on the anticipated rate of possible deterioration of the equipment and the likelihood of an environmental or human health incident occurring if deterioration goes undetected between inspections. The required inspections and testing are further detailed in the following paragraphs. The inspection program should identify the need for corrective actions where needed.

Any deterioration or malfunction of equipment or structures noted during an inspection shall be remedied. If the problem poses an imminent hazard to human health or the environment, remedial action should be taken immediately.

In addition to equipment inspections, inspections of rainwater, which has collected within a containment dike, shall be performed prior to release of the water.

As required by 40 CFR 112.7(e), the organizations responsible for operation of underground and aboveground storage tanks at FSH shall document that inspections are performed on the tanks and ancillary equipment. Written procedures and this plan shall be used for training these personnel. DSEF representative shall oversee the inspections and copies of inspection forms shall be maintained at DSEF for a period of three years.

6.1.1 Fuel and Oil Products Inventory

A fuel and oil products inventory shall be performed monthly. Tanks shall be gauged on a daily basis when in use and otherwise gauged monthly under static storage conditions (i.e., tanks used

for emergency purposes only). Liquid levels shall be monitored by a dipstick measuring device, a steel tape with bobber, and/or electronically. Results of monitoring should be recorded on DA FORM 5831-R, "Petroleum Product Inventory Control Sheet." A copy of this form can be found on FSH Forms Database and has been provided for review as Exhibit 6-1. Any unexplainable decrease or increase in quantity could indicate leakage (an increase in quantity can occur if water leaks into the tank). If product is added or removed between routine gauge checks, any discrepancy between the gauge quantities, beyond the allowable percent loss for the particular product, may indicate leakage. Suspected leaks shall be reported to DSEF for initiation of cleaning, inspection, and needed repairs. Completed inspection sheets shall be maintained at each facility or organization for a minimum of 3 years.

6.1.2 Tank Inspections

Tank inspections shall consist of periodic visual inspections of ASTs, leak detection ports on applicable ASTs and USTs, and any visible ancillary equipment such as pipelines, pumps, valves and gauges. In addition, annual integrity testing for USTs and associated underground piping shall be performed in accordance with 30 TAC 334.47. All tank inspections will be maintained on file for 5 years.

Mobile facilities shall be inspected for leaks daily by the user unit or activity. All leaks shall be corrected immediately either by repair of the container or transfer of the fuel to another container.

Aboveground bulk storage tank inspections shall be performed on a monthly basis by the site manager or designated inspector.

The results of tank inspections shall be recorded using the form provided as Exhibit 6-2, as follows:

1. The date, time, tank unit name or identification number, and the inspector's name shall be recorded.
2. Each item shall be inspected individually. If the inspection item meets the criteria described in Item 4 below, the column should be marked by the inspector's initials or check marked. If any problems with the tank systems are observed, the item number should be noted in the discrepancy record and the problem described.

3. If maintenance is required, the necessary repairs and maintenance status shall be described on the form and the work order number shown. In instances where repairs are necessary, the repair technician should initial and date the maintenance status column and fill in the appropriate status code given on the bottom of the form.
4. Items to be inspected for each unit, as applicable, include the following:
 - a. Tanks:
 - Tank wall: Check for signs of deterioration (rust, leakage, etc.).
 - Secondary containment: Check for accumulation of oil or fuel inside diked areas.
 - Double-walled tanks: Check the leak detection port using a dipstick to determine if leakage has collected between the inner and outer tanks.
 - Catch Basin between valves and tank: Check the area for standing water. Remove lid and verify that no standing water has accumulated.
 - b. Valves:
 - Handles and connections: Check for leakage. Handles should be in good condition and not bent or broken.
 - Fusible links (if present): Check to ensure that the links are in good condition.
 - If possible, the operator should check the valve's operation by turning the valve on and off.
 - c. Pipes:
 - Connections: Check for leakage and signs of leaks (e.g., wet spots). Especially check flexible connections with camlock fittings.
 - Piping: Check pipe for rust, dents, cracks, or leaks.
 - Supports: Check for loose or unstable supports.
 - d. Level Gauges:
 - Test to ensure instrument is operating properly and is calibrated.

A sample inspection checklist for ASTs is provided as Exhibit 6-2 and, when completed, shall be kept as Appendix D.

For day tanks, PWBC Operations and Maintenance Division has an inspector who performs weekly inspections on emergency generators and their associated day tanks. An inspection log is kept at each day tank and generator site by PWBC. Exhibit 6-2 may be used to conduct these weekly inspections.

Electronic systems have been installed by FSH to monitor weekly usage of the USTs. Quarterly inspections include the operating condition of pumps, flow valves, tank vents and exposed lines, and any presence of leaks, corrosion, or chips. Annual inspections, conducted by a contractor designated by DSEF include testing of pressure gauges and the operating condition of dispensers (hoses, nozzles, etc.). Fuel meters are calibrated semiannually. Inspections for the presence of water are conducted after a significant rainfall.

The annual integrity testing of USTs is managed by DSEF. Integrity testing shall be conducted and records verified in accordance with 40 CFR 280. Records of quarterly and annual test results are also maintained by this division. A sample inspection checklist for USTs is provided as Exhibit 6-3 and, when completed, shall be kept with AST inspection checklist as Appendix D.

EXHIBIT 6-2

ABOVEGROUND STORAGE TANK INSPECTION CHECKLIST

Tank Identification No:				
Location:				
Contents:				
Date of Inspection:				
Inspector Name:				
	Problem Identified (Yes/No)	Description of Problem & Repair Required	Inspected by (Initials)	Inspection Date
Tank Condition				
Leakage visible				
Rust				
Cracks				
Damage				
Secondary Containment Condition				
Visible oil				
Dike integrity				
Double-wall leak detector port				
Valve Condition				
Handles				
Fusible links				
Valve operable?				
Leakage visible?				
Piping Condition				
Flanges				
Flexible connections				
Rust				
Cracks				
Damage				
Supports intact				
Secondary containment				
Leakage visible				
Level Gauges				
Gauge operable				
Calibrated				

EXHIBIT 6-3 UNDERGROUND STORAGE TANK INSPECTION CHECKLIST

Date of Inspection								
Release Detection System: Inspect for proper operations								
Spill Buckets: Ensure spill buckets are clean and empty.								
Overfill Alarm: Inspect for proper operation. Can a delivery person hear or see the alarm when it alarms?								
Impressed Current System: Inspect for proper operation.								
Fill and Monitoring Ports: Inspect all fill/monitoring ports and other access points to make sure that the covers and caps are tightly sealed and locked.								
Spill and Overfill Response Supplies: Inventory and inspect the emergency spill response supplies. If the supplies are below, restock the supplies. Inspect supplies for deterioration and improper functioning.								
Dispenser Hoses, Nozzles, and Breakaways: Inspect for loose fittings, deterioration, obvious signs of leakage, and improper functioning.								
Dispenser and Dispenser Sumps: Open each dispenser and inspect all visible piping, fittings, and couplings for any signs of leakage. If any water or product is present, remove it and dispose of it properly. Remove any debris from the sump.								
Piping Sumps: Inspect all visible piping, fittings, and couplings for any signs of leakage. If any water or product is present, remove it and dispose of it properly. Remove and debris from the sump.								

Inspection Completed By: _____

Site Location: _____

6.1.3 SAS Drum Storage Inspections

SAS drum storage areas shall be inspected weekly and a record of inspections should be kept at the facility as designated by the building management and all personnel shall be notified of the location. Inspections should be performed by the facility hazardous waste manager or other designated inspector. Items to be inspected for each unit include the following:

- a. Drums:
 - Check for leakage and signs of leaks (e.g., wet spots, rust or corrosion).
 - Check that drums are properly labeled and their contents and lids are sealed closed.
 - For hazardous waste drums, ensure that once drums are full, they do not stay in the satellite collection area longer than 72 hours before being transported to the DSEF 90-day Hazardous Waste Storage Building at Facility 4055.
 - For drums used to accumulate hazardous waste, ensure that the drums are located such that they are under the control of the operator generating the hazardous waste; are labeled "Hazardous Waste;" are closed at all times except to add hazardous waste; are in good condition; and made of material compatible with the hazardous waste to be stored.
- b. Secondary containment:
 - Check for signs of damage (e.g., erosion of earthen berms, cracks in containment berms, sizeable vegetation growing along the berm base, and leaks or punctures in Polypacks or Enviropacks).
 - Inspect the structural condition of hazardous materials storage buildings.

A sample inspection checklist for drum storage areas is provided as Exhibit 6-4 and, when completed, shall be kept as Appendix D.

EXHIBIT 6-4 DRUM STORAGE INSPECTION CHECKLIST

Site: _____

Site Location: _____

Inspection Completed By: _____

Date/Time: _____

Hazardous Waste Containers

Number of Containers in Storage:	Yes	No	N/A
Are any containers open?			
Are any containers corroded/rusted/damaged?			
Are any containers heads bulging?			
Are any containers leaking?			
Accumulation Start Date documented on the containers?			
"Hazardous Waste" warning marked on the containers?			
Contents marked on the container?			
Containers stored for < 90 days?			

Storage Area

	Yes	No	N/A
Is the area free of severe structural deterioration?			
Is area free of liquids/water?			
Is area secured?			
Is adequate aisle space maintained for movement of emergency response personnel and/or equipment?			
Is adequate space present between containers to allow unobstructed observations of all sides?			

Satellite Accumulation Areas

	Yes	No	N/A
Are containers properly labeled?			
Are containers full?			
If full, is accumulation date marked?			

6.2 PERSONNEL TRAINING

Personnel involved in the management and handling of oil, hazardous waste or hazardous substances should participate in periodic spill prevention and response training programs in accordance with 40 CFR 112.7(f), 40 CFR 265.16 or 29 CFR 1910.120. Training should be facilitated by individuals familiar with the SPCCP and HW management (i.e., the DSEF hazardous waste coordinator).

Training programs should be conducted in accordance with 29 CFR 1910.120 as follows:

1. Annually.
2. Within 6 months (2 weeks recommended) for personnel starting in a supervisory position prior to starting work for personnel entering a nonsupervisory position.
3. After any significant revisions to the training program or the SPCCP.
4. After a spill response in which training deficiencies were noted.

Records of the type, extent, and frequency of each employee's training should be maintained by the DSEF and copies provided to the individual facilities.

There are three types of training that should be performed related to health and safety, hazardous waste management, and spill control and countermeasures. The DSEF should make these courses available to the appropriate personnel, either by instructing the courses or providing an outside contractor to perform training. The requirements of each course are detailed below.

6.2.1 OSHA Hazardous Waste Operations Training

In accordance with 40 CFR 1910.120, personnel forming the IIRT and the IRT should receive an initial 40 hours of hazardous waste operations (HAZWOPER) training. Eight hours of refresher training should be performed annually. The elements to be covered in this training include the following:

- Names of personnel and alternates responsible for site safety and health.
- Safety, health and other hazards present on the site.
- Use of personal protective equipment (PPE).
- Work practices by which the employee can minimize risks from hazards.

- Safe use of engineering controls and equipment on the site.
- Medical surveillance requirements, including recognition of symptoms and signs that might indicate overexposure to hazards.
- Decontamination procedures.
- An emergency response plan (the ISCP) for safe and effective responses to emergencies, including the necessary PPE and other equipment.
- Confined space entry procedures.
- Proper use and labeling of drums and containers.

6.2.2 RCRA Hazardous Waste Management

Personnel from the DSEF Compliance Section and the hazardous waste manager of generating units should receive 3 days of hazardous waste management training within 6 months of hire or new job assignment and 1 day of annual refresher training, in accordance with 40 CFR 265.16. In addition, generating unit operators handling hazardous waste should also receive initial and refresher training on the management of hazardous wastes, including emergency procedures outlined in the ISCP. The training should be directed by a person trained in hazardous waste management procedures, and should include instruction that teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed. At a minimum, the training program should be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with the SPCCP and the ISCP, emergency equipment, and emergency systems.

6.2.3 Spill Prevention Control and Countermeasures Training

Personnel from the DSEF Compliance Section and personnel responsible for the management of oil storage and handling equipment should receive an initial 1-day classroom training within 6 months of hire or new job assignment and an additional 1-day annual refresher training, in accordance with 40 CFR 112.7. This training shall encompass the proper operation and maintenance of equipment to prevent the discharges of oil and applicable pollution control laws, rules, and regulations. Spill prevention procedures described in the SPCCP and emergency procedures described in the ISCP shall also be discussed.

6.2.4 Non FSH Personnel/Contractor Training

Contractors working in areas associated with oils or hazardous substances are responsible for training their personnel in spill response and reporting procedures. The contract administrator for the Army is responsible for providing these contractors with a summary of spill response and reporting procedures.

6.3 RECORD KEEPING

A record of inspections and training logs, signed by the supervisor or inspector, should be maintained on file, along with this plan, for a minimum period of 3 years. These records should be maintained in Appendix D and E, respectively. Additionally, these records should be maintained by the Director of DSEF for 3 years. In accordance with 30 TAC 334.47(e)(3), a record of tank inspections shall be maintained for 5 years.

7. SPILL HISTORY

In accordance with 40 CFR 112.7(a), a record of spills within the past 12 months at the installation requiring implementation of this plan shall be included in this plan. As of the date of this revision, there have been two reportable spills at FSH within the last year.

A permanent log should be kept of reportable spills at the installation requiring implementation of this plan. The log should contain the following:

- Name and location of spill site.
- Type and estimated amount of spill.
- Date and time of spill, if known, or time of spill detection.
- Name of person detecting or reporting spill.
- Name(s) of person(s) involved in cleanup.
- Process of cleanup.
- Regulatory notification process: names and telephone numbers of persons contacted, respective agency (agencies), and time of contact.
- Final disposition of the spill: a written record of all events reflecting final disposition of the spill, including plans for preventing recurrence.

Most of the information required for the log can be obtained from the initial spill report, which should be submitted to the appropriate authorities within 24 hours of the incident. A copy of the Spill Response Notification Form required to document a spill is provided as Exhibit 7-1. Procedures and protocol for responding to a spill are outlined in the ISCP preceding this document and in the facility-specific information provided as Appendix C. A listing of Federal, State, and Local Agency phone numbers has been provided as Exhibit 3-2 of the ISCP.

EXHIBIT 7-1

SPILL RESPONSE NOTIFICATION FORM

Installation Point of Contact:
Phone Numbers:
Reporter's Name:
Position:
Phone Number:
Installation:
Address:
City:
State:
Zip Code:
MACOM:
Date Reported:
Time Reported:
Source and/or Cause of Incident:
Date of Incident:
Time of Incident:
Incident Address/Location:
Nearest City:
State:
County:
Zip Code:
Distance from City:
Direction from City:
Section:
Range:
Facility Capacity:
Tank Capacity:
Container Type:
Material:
Released Quantity:
Quantity Released in Water:
Unit of Measure:
Reportable Quantity
- Federal: - State:
Action Taken to Correct, Control, or Mitigate Incident:
Number of Injuries:
Number of Evacuated:
Cleanup Costs:
Notification:
-EPA: -Other:
-State:
-NRC:
-SWRO:

FINAL

INSTALLATION SPILL CONTINGENCY PLAN

FORT SAM HOUSTON

Prepared for

U.S. ARMY CORPS OF ENGINEERS
TULSA DISTRICT

Prepared by

WESTON SOLUTIONS, INC.
5599 San Felipe, Suite 700
Houston, Texas 77056

June 2003

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LIST OF ACRONYMS AND ABBREVIATIONS

AAFES	Army and Air Force Exchange Service
AMED	Army MedCom
AR	Army Regulation
AST	aboveground storage tank
BAMC	Brooke Army Medical Center
BFE-C	Business Center of Fire and Environment-Compliance
CABC	Directorate of Community Activities Business Center
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHEMTREC	Chemical transportation Emergency Center
CID	Criminal Investigation Division
CLRA	Canyon Lake Recreation Area
CWA	Clean Water Act
DOD	Department of Defense
DPS/PMO	Department of Public Safety
DSEF	Directorate of Safety, Environment, and Fire
EHS	Extremely hazardous substances
EO	Executive Order
EPA	United States Environmental Protection Agency
ETIS	Environmental Technical Information System
FFCA	Federal Facilities Compliance Act
FSH	Fort Sam Houston
HAZMAT	hazardous material
HAZWOPER	Hazardous Waste Operations
HS	hazardous substance
HVAC	Heating, Ventilating, and Air Conditioning
HW	hazardous waste
IC	Incident Commander
IIRT	Initial Installation Response Team
IOSC	Installation On-Scene Commander

LIST OF ACRONYMS AND ABBREVIATIONS (CONT.)

IRT	Installation Response Team
ISCP	Installation Spill Contingency Plan
LEPC	Local Emergency Planning Committee
MOGAS	Motor Gasoline
NCP	National Contingency Plan
NCRS	Natural Resource Conservation Service
NIOSH	National Institute for Occupational Safety and Health
NRC	National Response Center
OHMTADS	Oil and Hazardous Materials Technical Assistance Data System
OPA	Oil Pollution Act
OPP	Oil Pollution Plan
OSHA	Occupational Safety and Health Act
PCB	Polychlorinated Biphenyls
PE	Professional Engineer
POL	petroleum, oil, or lubricant
PPE	personal protective equipment
PWBC	Directorate of Public Works Business Center
RCRA	Resource Conservation and Recovery Act
RLBC	Directorate of Readiness and Logistic Center
RQ	reportable quantity
RRC	Railroad Commission of Texas
RSC	Reserve Support Command
SARA	Superfund Amendments and Reauthorization Act
SAS	Satellite Accumulation Site
SCBA	Self Contained Breathing Apparatus
SERC	State Emergency Response Commission
SERO	Senior Emergency Response Officer
SJA	Staff Judge Advocate
SPCCP	Spill Prevention, Control, and Countermeasures Plan
TAC	Texas Administrative Code
TCEQ	Texas Commission of Environmental Quality

LIST OF ACRONYMS AND ABBREVIATIONS (CONT.)

TERC	Texas Emergency Response Center
U.S.C.	United States Code
USCG	United States Coast Guard
USDOD	U.S. Department of Defense
USGS	United States Geological Survey
UST	underground storage tank

SPILL ASSESSMENT AND EMERGENCY RESPONSE FLOW CHART

1. INTRODUCTION

The National Contingency Plan (NCP) was established under the Clean Water Act (CWA), as amended, and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The NCP requires federal agencies to plan for emergency response to spills of oil and hazardous substances for which they are responsible. Army Regulation (AR) 200-1 states that it is Army policy to provide for prompt, effective response to contain and cleanup spills that might occur. Further, AR 500-60 requires the Army to make provisions for assisting the U.S. Environmental Protection Agency (EPA) and U.S. Coast Guard (USCG) with spills not due to Army activities. The Installation Spill Contingency Plan (ISCP) has been developed to fulfill FSH compliance with the above regulations when responding to spills.

1.1 PURPOSE

This ISCP establishes responsibilities, duties, procedures, and resources to be employed to contain, mitigate, and cleanup oil and hazardous substance spills at Fort Sam Houston (FSH) proper.

1.2 APPLICABILITY

The ISCP is applicable to each site at FSH that stores, handles, or transfers oil, hazardous waste, or hazardous substances. Facility specific information for those identified facilities is included in Appendix C of the Spill Prevention Control and Countermeasures Plan for FSH. Copies of this document will be made available to the Directorate of Community Activities Business Center (CABC); Provost Marshal Office (PMO); Public Works Business Center (PWBC); Readiness Logistic Business Center (RLBC); Preventive Medicine Service; 749th Ordnance Detachment; Public Affairs Office (PAO); Staff Judge Advocate (SJA); the FSH Fire Department; and other appropriate command offices. A copy of the plan will also be provided to each site that stores oil, hazardous waste, or hazardous substances. Separate plans exist for Camp Bullis and Canyon Lake Recreation Area, both of which come under the command and operation of FSH.

2. ISCP IMPLEMENTATION, REVIEW, AND UPDATING

The ISCP shall be used while planning a response to a spill. The plan shall be implemented when there is a potential for any of the following conditions:

- When a reportable-quantity release has occurred.
- When an oil spill reaches or has the potential to reach navigable waters.
- When there is any doubt as to the seriousness of a hazardous materials incident.

A reportable quantity is a specific quantity of a given chemical that is deemed a hazard to human health or the environment. Appendix B contains a list of the hazardous substances subject to reportable quantity notification under the Superfund Amendments and Reauthorization Acts (SARA) of 1986. Periodically chemicals are added and deleted from this list. Updates are noted in the *Federal Register* and can be found at 40 CFR § 302.4.

2.1 PLAN REVIEW AND UPDATE

The Directorate of Safety, Environment, & Fire (DSEF) should review and evaluate the ISCP every 5 years. Any substantive change should be entered into the plan within 6 months of the change and certified by a Texas Professional Engineer. At a minimum, this means that any amendments made to the Spill Prevention, Control, and Countermeasures Plan (SPCCP) should be reflected in the ISCP.

2.2 PLAN DISTRIBUTION

The DSEF is responsible for distributing copies of the ISCP to the appropriate command offices and to each site that stores oil, hazardous waste, or hazardous substances.

3. ROLES AND RESPONSIBILITIES

Section 3 describes the roles and responsibilities of organizations and individuals charged with responding to spills at FSH. The DSEF is responsible for organizing FSH response capabilities, including identifying response team members and ensuring that adequate spill response equipment is available at FSH.

3.1 INSTALLATION RESPONSE TEAM

FSH resources and their roles in a spill response are detailed below. The Installation Response Team (IRT) is tasked with emergency response duties as outlined below. Exhibit 3-1 provides the names, addresses, and work and home telephone numbers of the IRT members.

3.1.1 Directorate of Safety Environment and Fire

The DSEF plans spill response actions for incidents occurring at FSH. Unless otherwise directed by the Installation On-scene Coordinator (IOSC), the installation spill response operations center will initially be located as follows:

- Fort Sam Houston: Building 3830, Fire Station:

Telephone on base: 911

Telephone off base: 9-(210) 221-2727.

The DSEF shall be responsible for the following:

- Provide the IOSC and an alternate.
- Provide IRT personnel and equipment, as required.
- Facilitate IRT training.
- Maintain necessary equipment and supplies on hand for the IRT.
- Update and distribute copies of the ISCP to the appropriate command offices and to each site that stores oil, hazardous waste, or hazardous substances.

EXHIBIT 3-1 INSTALLATION RESPONSE TEAM CONTACT LIST

Name	Work Number	Home Number	Home Address
<u>Installation On-Scene Coordinator:</u>			
Lt Col. Sanders	210/221-4842	210/404-2276	13035 Trent Street San Antonio, TX 78232-4789
David P. Walker (Alternate)	210/221-4842	210/497-2045	2317 Encino Cliff San Antonio, TX 78259
<u>First Responder (Fire Department):</u>			
Fire Chief – Curtis Williams	210/221-1804	210/391-7493 Cell	Not available
Anthony Shultz (Alternate)	210/221-2727	210/358-1801	4355 Dexired, San Antonio, TX 78240
<u>Second Responder Electrical:</u>			
Jamie Machado (Primary)	210/221-3350	210/921-2462	530 W. Mayfield Blvd. San Antonio, TX 78211
James Seymore (Alternate)	210/221-3420	210/659-7055	P.O. Box 1599 Blanco, TX 78606
<u>O&M Roads and Grounds:</u>			
Martin Gonzales	210/221-3559	210/299-1254	3107 Neptune Street San Antonio, TX 78226
<u>Notification:</u>			
David P. Walker	210/221-4842	210/497-2045	2317 Encino Cliff San Antonio, TX 78259
<u>Cleanup:</u>			
Irma Pena-Avalos	210/221-5066	210/520-5536	742 West Kirk Place San Antonio, TX 78226
<u>Safety:</u>			
Guadalupe Gomez	210/221-0830	210/834-4309 Cell 210/496-6566 HM	2106 Peach Blossom San Antonio, TX 78247
<u>Public Affairs:</u>			
Phil Reidinger	210/221-1151	210/698-2017	7921 Triple Crown Fair Oaks Ranch, TX 78015
<u>Preventive Medicine:</u>			
Al Kennedy	210/916-7011	210/658-7553	8351 Delphian Universal City, TX 78148
<u>Provost Marshall Office:</u>			
LTC Floyd Williams	210/221-1404	Not Available	Not Available

EXHIBIT 3-1
INSTALLATION RESPONSE TEAM CONTACT LIST (Cont.)

Name	Work Number	Home Number	Home Address
<u>Staff Judge Advocate:</u>			
Kent Grubb	210/221-2373	210/405-2815	15510 Creekside San Antonio, TX 78232
<u>749TH Ordnance Dept.:</u>	210/221-1308		
<u>DHS :</u>	911		
<u>DPTMSEC:</u>			
LTC Steve Bolint	210/221-2902	Not Available	Not Available

3.1.2 Initial Installation Response Team (First Responders)

The Fire Department at FSH is the initial installation response team (IIRT) for spills of a magnitude greater than that which can be handled by on-site personnel and equipment. This team shall contact the IOSC upon arrival at a spill site. The IIRT should take all measures to control and contain the spill until the IOSC arrives at the spill site.

The IIRT may consist of personnel from the Fire Department, and the Fire Chief shall be designated as the Senior Emergency Response Officer (SERO). The SERO will direct field operations to eliminate all immediate threats to life and property. If time permits the SERO will consult with the IOSC before conducting any operations. The SERO will maintain communication with the IOSC and make recommendations to the IOSC regarding response actions.

3.1.3 The Installation On-Scene Coordinator

The DSEF representative should serve as the IOSC with a designated alternate serving as the alternate IOSC. The IOSC is the official who coordinates and directs Army control and cleanup efforts at the scene of an oil or hazardous substance or waste spill from Army activities on or near the installation. In compliance with 40 CFR 265.55, this person or the designated alternate should either be on the installation premises or on call at all times. The IOSC should have a cell phone. The cell phone should be used as the initial method of contact. If deemed appropriate, a radio should be assigned to the IOSC and should be capable of operating on the DSEF operations and fire operations frequencies. The IOSC should coordinate with the Fire Department to determine which method of communication will be used for a given situation. The DSEF vehicle should normally be the IOSC's vehicle.

Specifically, the IOSC shall be responsible for the following:

- Report to the spill scene or the Fire Department, as appropriate, immediately on first notification of the spill.
- Assess the spill, determine the appropriate response, and mobilize IRT or selected members and equipment.
- Request assistance from other governmental or private sources, if needed.

- Notify the installation executive officer, the Deputy to the Garrison Commander of all reportable quantity spills.
- Assist the individual first observing/reporting the spill in completing a spill report (Exhibit 5-1).
- Notify appropriate local, state, and federal agencies, as required (Exhibit 3-2).
- Maintain an incident log for all spills.
- Assess, in coordination with Preventive Medicine activity personnel, environmental damage and possible hazards to human health, and recommend appropriate restoration measures.
- Prepare and submit reports to higher headquarters, EPA, and/or USCG, as appropriate.
- Test the effectiveness of this ISCP by conducting and documenting an annual exercise (Exhibit 4-6).
- Compile and maintain at the DSEF a material safety data sheet (MSDS) for all chemicals used or stored at FSH.

3.1.4 Decontamination Unit

The IIRT also serves as the decontamination unit. The decontamination unit applies material, removes contaminated material, packs contaminated material, and applies other decontamination measures to the contaminated area. The decontamination unit leader is responsible for the technical aspects of decontamination.

3.1.5 Provost Marshal Office

The Provost Marshal Office shall provide guards and traffic control as necessary to secure the spill site. The PMO is responsible for investigation of a spill that could be a criminal act or else is responsible to contact the Criminal Investigation Division (CID) to investigate. It is recommended that the PMO coordinate with CID to establish procedures of assessing a spill when criminal activities are suspected. The DSEF and the PMO are responsible for ensuring that Team members are briefed on the procedure.

3.1.6 Directorate of Readiness and Logistics Center (RLBC)

The RLBC should perform the following:

- Provide to the IOSC a representative knowledgeable in fuel storage and handling procedures.
- Ensure that petroleum handling operations comply with the spill prevention measures described in this plan.
- Ensure that all personnel handling oil or hazardous materials such as military, CABC, and contractors are familiar with the reporting requirements of this plan.

3.1.7 Preventive Medicine Service

The Preventive Medicine Service, Brooke Army Medical Center (BAMC), should perform the following:

- Assess immediate health threat to response teams and to military and civilian personnel, and recommend appropriate countermeasures.
- Assess, in coordination with DSEF, environmental damage and health hazards resulting from the incident.
- Provide a member for the IRT, as required.
- Recommend and supervise personnel decontamination procedures, as required.

3.1.8 749th Ordnance Detachment

The 749th Ordnance Detachment provides support for ordnance disposal, if required.

3.1.9 Public Affairs Office

The Public Affairs Office shall prepare for the IOSC review and release news briefs and photographs documenting spill responses .

3.1.10 Staff Judge Advocate

The Staff Judge Advocate should perform the following:

- Ensure that information, records, photographs, and samples relating to a spill are adequate for legal purposes and are safeguarded for future use, in the event the spill expands beyond the installation boundaries.
- Provide a member for the IRT, as required.

3.1.11 Satellite Accumulation Site (SAS) Manager

Local unit site managers for USTs, ASTs, and SAS areas are responsible for cleanup of nonreportable spills within their local areas that their organization units can handle without involvement of other units or outside parties. However, whether a spill is reportable or not, the IOSC should be notified of all such incidents.

Site managers should keep spill kits on hand for spill emergencies. Response equipment is further detailed in Section 4 of this document. Exhibit 4-1 is a recommended list of spill control materials and equipment. Spill kits should be inspected on a monthly basis for completeness of components. The site manager should maintain the spill kits between inspections.

Evacuation routes for interior building areas near hazardous material storage areas should be defined by the site manager and identified on specific drawings of the building. These drawings should be produced by the site managers. Exterior site evacuation routes should be planned for each site by the SAS manager and DSEF based on prevailing wind direction and specific site conditions.

3.2 OFF-POST SPILL RESPONSE RESOURCES

In addition to the post organizations and personnel assigned to the response effort, provisions have been made for notifying off-post organizations when FSH spill response resources and expertise are insufficient, and when off-post water, land, or air are adversely affected. Some of the major off-post spill response resources are discussed in the paragraphs below. Exhibit 3-2 contains a current listing of telephone numbers to contact off-post spill response resources.

3.2.1 Local Authorities

Upon the IOSC request, the County Sheriff's office, and San Antonio Police Department should be called to assist in securing any on- or off-post areas in proximity to the spill site, disseminating information to the local populace, and evacuating personnel, if necessary. The San Antonio Fire Department should be called on to provide personnel and equipment to control fire hazards. A list of local response organizations is available in Exhibit 3-2.

EXHIBIT 3-2
FEDERAL, STATE, AND LOCAL AGENCIES

<u>AGENCY</u>	<u>TELEPHONE</u>	<u>WHEN TO CALL</u>
Fort Sam Houston Fire Department	210/221-2727	Every spill on post
San Antonio Fire Department	210/207-7744	If Fort Sam Fire Dept. needs support
Bexar County Sheriff's Office	210/270-6000	If additional assistance is needed
San Antonio Police Department	210/207-7484	If additional assistance is needed
Local Emergency Planning Commission (LEPC)	210/828-3939	If additional assistance is needed
CHEMTREC	800/424-9300	If you need information on a specific chemical
DoD Pesticide Hotline (for pesticide spills)	410/671-3773 DSN 584-3773	If a reportable spill involves pesticides
National EPA Response Center	800/424-8802	If a reportable spill
Regional EPA Response Center (Region 6)	866-372-7745	If a reportable spill
TCEQ (San Antonio Office)	210/490-3096	If a reportable spill
Texas Spill Response Center (TCEQ Austin Office)	512/463-7727 800/832-8224	If a reportable spill
Headquarters, MEDCOM	210/221-6441	If a reportable spill
U.S. Army Operation Center	202/697-0218	If a reportable spill
Southwest Region Office (SWRO)	210/221-6440	If a reportable spill

3.2.2 State of Texas Spill Response Center

The TCEQ has developed an emergency response center to respond to spills occurring within the state boundaries. The spill response center will be contacted in the event a spill is reportable. The spill response center will, at its discretion, provide technical assistance and consultation, and will assess the health hazard to the population in the local area. A state representative may be dispatched to the scene to assist in containment, cleanup, or evaluation operations. The state representative will be briefed by the IOSC and may make available state spill response equipment and contractor personnel to assist the IOSC. The Environmental Release Hotline or the TCEQ can be reached at 800/832-8224. The local TCEQ Region 13 office in San Antonio can be contacted at 210/490-3096.

3.2.3 Regional Response Center

FSH is under the jurisdiction of EPA Region 6, in Dallas, Texas. The regional response center is able to provide additional equipment, personnel, expertise, and access to databases to aid in responding to major spills. The regional response center will be contacted in the event a spill is reportable. The 24-hour hotline number for EPA Region 6 is 866/372-7745.

3.2.4 Private Contractors

Names of reputable contractors can be obtained from the State of Texas Spill Response Center, the San Antonio Metropolitan Health district office, or EPA Region 6 in Dallas, Texas.

3.2.5 Chemical Transportation Emergency Center (CHEMTREC)

CHEMTREC operates a 24-hour hotline that issues warnings and limited guidance when a spill product can be identified by either chemical or trade name. CHEMTREC will also assist in contacting the manufacturer or shipper for additional information. This service should be used whenever adequate spill response information is not available. The telephone number for CHEMTREC is 800/424-9300.

3.2.6 Environmental Technical Information System (ETIS)

ETIS is a computer information system that contains federal and state environmental regulations and directories of federal and state environmental contacts. The system manager is the U.S. Army Construction Engineering Research Laboratory. Additional information about the system and how to gain access may be obtained by calling 904/283-1667.

3.2.7 Oil and Hazardous Materials Technical Assistance Data System (OHMTADS)

OHMTADS is a database that is a computer information retrieval file on various hazardous substances. The database contains chemical, biological, toxicological, and response information on more than 1,000 chemicals that may be accessed by either chemical or trade name. OHMTADS should be considered for spill response planning and as a source of information during a spill response. DSEF provides information describing how to access OHMTADS through ETIS.

3.2.8 Volunteer Civic Organizations

Volunteer groups may be requested to assist in the cleanup of any affected wildlife. Names and contacts within the various civic organizations can be obtained from the San Antonio Chamber of Commerce at 210/229-2100.

4. EQUIPMENT, TRAINING, AND MEDICAL SURVEILLANCE

Section 4 describes response equipment recommended, required, and available at Fort Sam Houston. This includes spill control materials, hazardous materials equipment, heavy equipment, and personal protective equipment. Training and medical surveillance requirements are provided in this section.

4.1 SPILL KITS

Facilities that store oil, hazardous waste, or hazardous substances at Fort Sam Houston are required to have spill control materials and equipment availability within immediate reach in the event of a spill. Spill kits should be inspected at a minimum on a monthly basis for completeness of components. The SAS manager or designated alternate is responsible for maintaining the spill kit. Exhibit 4-1 provides a recommended list of spill control materials and equipment that should comprise a typical spill kit.

4.2 PERSONAL PROTECTIVE EQUIPMENT

Personnel on the IIRT, IRT, and decontamination unit should have access to appropriate protective equipment, as detailed in Exhibit 4-2. This protective equipment should provide the maximum level of protection for initial site entries until the hazards have been further identified and defined by monitoring, sampling, and other reliable methods of analysis. Depending on the results of the initial hazard analysis, the level of protection may be adjusted. The equipment shall be stored at the FSH Fire Department for IIRT use.

4.3 SPILL RESPONSE EQUIPMENT

FSH has a variety of spill response equipment as detailed in the following exhibits. Exhibit 4-3 is list of spill control materials available at FSH. Exhibit 4-4 presents a list of equipment stored at the FSH Fire Department for use by the IIRT. Exhibit 4-5 presents a list of equipment unit items available to the IOSC from the Roads and Grounds Division – Directorate of Public Works Business Center (PWBC).

EXHIBIT 4-1
RECOMMENDED SPILL CONTROL MATERIALS AND EQUIPMENT FOR SITES
STORING POLS, HAZARDOUS WASTE, OR HAZARDOUS SUBSTANCES

- Oil-absorbing or absorbent material (bentonite, Petro-sorb, diatomaceous earth, vermiculite, amorphous silicate, etc.), as applicable.
 - Neutrasorb acid neutralizer, as applicable.
 - Solusorb solvent absorbent, as appropriate.
 - Safety goggles.
 - Chemical-resistant rubber boots and gloves.
 - Nonsparking shovel, as appropriate.
 - Broom.
 - Fire extinguisher appropriate for specific types of hazardous substances stored or used at site.
 - Waste containers (22-gallon buckets with lids).
-

EXHIBIT 4-2

PERSONAL PROTECTIVE EQUIPMENT FOR INITIAL SITE ENTRY

- Positive-pressure (pressure-demand), self-contained breathing apparatus (OSHA/National Institute for Occupational Safety and Health (NIOSH) approved).
 - Chemical-resistant clothing (overalls and long-sleeved jacket, coveralls, hooded two-piece chemical splash suit, disposable chemical-resistant coveralls).
 - Coveralls (under splash suit).
 - Gloves, outer, chemical-resistant and in compliance with material spilled.
 - Gloves, inner, chemical-resistant and in compliance with material spilled.
 - Boots, outer, chemical-resistant and in compliance with material spilled.
 - Two-way radio communications (intrinsically safe).
 - Hard hat.
 - Self Contained Breathing Apparatus (SCBA).
 - Level A and B personal protective equipment.
 - Portable gas detectors applicable to spilled materials.
-

EXHIBIT 4-3
SPILL CONTROL MATERIALS AVAILABLE AT FORT SAM HOUSTON

Item	Quantity	Location
Drums, 55-gallon	16	Building 4195
Drums, 30-gallon	10	Building 4195
Absorbent material, 24-inch square	1 bundle	Building 4226
Sand	300 cubic yards	East of Building 3834
Cedar Shavings	8 cubic yards	Adjacent to Building 3556
Wood Shavings	4 cubic yards	Building 2186

EXHIBIT 4-4
HAZARDOUS MATERIALS RESPONSE EQUIPMENT
STORED AT FSH FIRE DEPARTMENT

Item	Quantity
20-foot trailer	1
Absorbent socks (reactive)	1 box
Absorbent socks (nonreactive)	18 each
Absorbent pads	20 boxes
Air and seal bag, 15" x 21"	2 each
Air and seal bag, 24" x 24"	2 each
Chemical resistant boots	30 pair
Disposable coveralls	1 box
Double mats	3 boxes
Emergency blanket, 58" x 90", yellow	1 each
Explosion proof pump	1 each
Gloves, chemical resistant	6 each
HAZMAT dikes	3 each
HAZMAT pillows	2 each
Level "B" suits	40 each
Level "A" suits	20 each
NOMEX coveralls	12 each
Nonsparking tools	1 kit
Nonsparking shovel	1 each
Patch kit	3 each
Pipe pluggers	1 kit

EXHIBIT 4-4
HAZARDOUS MATERIALS RESPONSE EQUIPMENT
STORED AT FSH FIRE DEPARTMENT (Cont.)

Item	Quantity
Plugs, rubber	7 each
Plugs, wooden	1 kit
Pool, decon	6 each
Portable gas detector	8 each
Repair putty	2 boxes
SCBA	24 each
Shower, decon	2 each
Skimmer mats	3 boxes
Skimmer pulp	6 boxes
Skimmer booms	7 each
Spillstopper	1 box
Truck	1 each

EXHIBIT 4-5
HEAVY EQUIPMENT AVAILABLE FOR SPILL RESPONSE

Type	Quantity	Capability
Dump trucks	3	Haul material from stockpile to emergency location. Dump and spread material at the emergency site. Haul rubble, debris, and contaminated material from the emergency location to a specified location.
Loaders	2	Move excavated material from ground to dump truck.
Backhoes	2	Cut ditches and excavate pits. Load material for transportation to and from site. Load rubble and debris for removal. Excavate buried utilities.
Water truck, 1,500 gal. with auxiliary pump	1	Refill fire trucks. Deliver water to support field mixing of concrete.
Tractor-Truck, 10 ton	1	Haul equipment and material.
Grader	1	Scrape and stockpile material. Cut shallow ditches.
Lowbed tractor-trailer, 40 ton	1	Haul equipment.
Rolls of absorbent pad	2	Absorb spilled material.
Light and heavy dozer	1 each	Cut shallow ditches and/or shallow pits. Raise berms. Stockpile contaminated material for removal. Augment brush cutting.
Heavy dozer	2	Raise berms.
NOTE: Equipment is located at PWBC Roads and Grounds, building 3882.		

4.4 TRAINING

DSEF will establish and administer a training program for members of the IRT, as required by OSHA 29 CFR 1910.120. This training should encompass the proper operation and maintenance of equipment to prevent the discharges of oil and the applicable pollution control laws, rules, and regulations. Spill prevention procedures described in the SPCCP and emergency procedures described in Section 5 of this ISCP should also be discussed.

Documentation of the extent and frequency of ISCP training for the IRT will be maintained by DSEF. The Fire Department should maintain the training records of the IIRT members.

4.5 MEDICAL SURVEILLANCE

The Preventive Medicine Service at BAMC should conduct a periodic health monitoring program for military and civilian personnel, including project managers employed in or otherwise responsible for carrying out duties at oil and hazardous substance spill sites. Medical examinations should comply, in content and frequency with 29 CFR 1910.120.

The Fire Department at FSH should ensure that members of the IIRT receive health monitoring required for spill response activities. Medical records for IRT and IIRT members should be maintained by the Preventive Medical Service at BAMC.

4.6 SPILL RESPONSE EXERCISES

Spill response exercises should be conducted annually and documented on Exhibit 4-6 and maintained in Appendix E.

EXHIBIT 4-6
SPILL RESPONSE EXERCISE FORM
(Complete for Each Exercise and File in Appendix E)

Date of Spill Exercise: _____

RESULTS OF SPILL SIMULATION:

Location and description of spill simulation: _____

Description of spill response:

Installation Point of Contact: _____ Phone No.: _____

Reporter's Name: _____ Phone No.: _____

Position: _____

Installation: _____

Address: _____

City: _____ State: _____ Zip Code: _____

MACOM: _____

Date Reported: _____ Time Reported: _____

Source and/or Cause of Incident: _____

Date of Incident: _____ Time of Incident: _____

Incident Address/Location: _____

Nearest City: _____ State: _____ Zip Code: _____

County: _____

Distance from City: _____

Direction from City: _____

Section: _____ Range: _____

Facility Capacity: _____

Tank Capacity: _____

Container Type: _____

Material: _____

Released Quantity: _____ Unit of Measure: _____

Quantity Released in Water: _____

Reportable Quantity: Federal: _____ State: _____

Action Taken to Correct, Control, or Mitigate Incident: _____

Number of Injuries: _____

Number Evacuated: _____

Estimated Cleanup Costs: _____

EXHIBIT 4-6
SPILL RESPONSE EXERCISE FORM (Cont.)
(Complete for Each Exercise and File in Appendix E)

Notification: EPA: _____ NRC: _____
State: _____ Other: _____

PERSONNEL PARTICIPATING IN SPILL EXERCISE

CRITIQUE OF SPILL RESPONSE ACTION

Timely response from IRT: _____ Response Time: _____

Timely mobilization of IIRT/IRT: _____ Response Time: _____

Comments: _____

Proper equipment and supplies: _____ (as directed by IOSC) _____

Comments: _____

Deficiencies: _____

Corrective Action: _____

By Whom: _____

Additional Comments: _____

Critique performed by: _____ Date: _____

5. EMERGENCY RESPONSE ACTIONS

Section 5 outlines the emergency response procedures and protocols that should be implemented by Fort Sam Houston in the event of a spill.

5.1 RESPONSE NOTIFICATIONS

Response notifications are initiated by the first person who observes the spill. This person shall call the FSH Fire Department. The Fire Department at FSH is also the IIRT and is tasked to assess the magnitude and seriousness of the spill. This assessment should be summarized on the IIRT initial spill report, Exhibit 5-1. If the incident involves a potentially reportable-quantity spill, or if the IIRT needs additional assistance to control and cleanup the spill, the IIRT Fire Chief shall call the IOSC. The IOSC is responsible for carrying out the emergency notification procedures and/or activating additional resources.

5.1.1 Emergency Notification Procedures

If a spill is deemed a "reportable spill" by the IOSC, the IOSC shall notify TCEQ (regional office and spill response center), EPA (regional office and National Response Center), U.S. Army Operation Center, and SWRO within 24 hours. The contact numbers for these regulatory agencies and other local, state, and federal agencies are provided in Exhibit 3-2. Notification may be verbal or written and shall include, at a minimum, information on the initial spill report (Exhibit 5-1). Within 5 days after notification, the location of the spill, including topographic maps and flow diagrams, should be submitted to Headquarters, MEDCOM, the Deputy Chief of Staff Installation Environmental for Facility Management, the Southwest Regional Installation Management Office (SWRO), and the U.S. Army Operations Center.

EXHIBIT 5-1 **SPILL RESPONSE NOTIFICATION FORM**

Installation Point of Contact:	
Phone Numbers:	
Reporter's Name:	
Position:	
Phone Number:	
Installation:	
Address:	
City:	
State:	
Zip Code:	
MACOM:	
Date Reported:	
Time Reported:	
Source and/or Cause of Incident:	
Date of Incident:	
Time of Incident:	
Incident Address/Location:	
Nearest City:	
State:	
County:	
Zip Code:	
Distance from City:	
Direction from City:	
Section:	
Range:	
Facility Capacity:	
Tank Capacity:	
Container Type:	
Material:	
Released Quantity:	
Quantity Released in Water:	
Unit of Measure:	
Reportable Quantity:	
Action Taken to Correct, Control, or Mitigate Incident:	
Number of Injuries:	
Number of Evacuated:	
Cleanup Costs:	
Notification:	-Other:
-EPA:	
-State:	
-NRC:	
-SWRO:	

5.1.2 Reporting Requirements for AST and UST Releases, Spills, or Overfills

The following reporting requirements shall be met within 24 hours after the installation becomes aware of the spill.

5.1.2.1 Suspected Petroleum Releases from USTs

Headquarters, MEDCOM, the U.S. Army Operations Center, SWRO, and TCEQ shall be notified by the DSEF if any of the following conditions exist:

1. Test, sampling, or monitoring results from a release detection method indicate a release may have occurred.
2. Unusual operating conditions exist such as erratic behavior of product dispensing equipment, sudden loss of product from the UST system, unexplained presence of water in the tank, the physical presence on-site of the regulated substance, or an unusual level of vapors of unknown origin.
3. Impacts in the surrounding area such as evidence of regulated substances or resulting vapors on soils, basements, sewer and utility lines, and nearby surface water.

5.1.2.2 Surface Spills, Overfills, and Belowground Releases

Headquarters, MEDCOM, the U.S. Army Operations Center, SWRO, and TCEQ shall be notified by DSEF within 24 hours of any of the following conditions:

1. Belowground releases from a UST system in any quantity.
2. Aboveground releases to land from a UST or AST system in excess of 25 gallons, or less than 25 gallons if cleanup of the releases can not be accomplished within 24 hours.
3. Aboveground releases to surface water that produce a sheen on the water.
4. An aboveground release to air, land, or water of a hazardous substance that exceeds its reportable quantity (see Appendix B), or less than the reportable quantity if cleanup of the release can not be accomplished within 24 hours.

5. Any release of hazardous waste that could threaten human health, or the environment outside the facility.
6. In addition, the National EPA Response Center should be notified if any spill occurs as described above in items 3 or 4.

5.1.2.3 Documentation Requirements

DSEF should assemble information from investigations of the site and the release, or from other sources such as USGS maps, state and local agencies, and Natural Resource Conservation Service (NRCS) soil maps to document the release. This information should include, but is not necessarily limited to the following:

- Data on the nature and estimated quantity of the release.
- Data from surface and subsurface soil sampling and analyses.
- Data from groundwater and/or surface water sampling and analyses.
- Data from available sources and/or site investigations regarding surrounding populations, water quality and use, well locations, subsurface soil conditions, climatological conditions, and land usage.

The information collected by DSEF during the course of the investigation should be submitted to TCEQ according to the schedule established by that agency.

5.1.3 Reporting Requirements for Cleanup

Following the completion of the response action, a written report should be prepared by the IOSC and submitted to the applicable regulatory agency within the time frame noted below:

- To EPA Region 6:
Within 60 days of a single 1,000-gallon oil spill or two oil spills in excess of 42 gallons each in a 12 month period (40 CFR 112.4).
- To TCEQ:
Within 30 days of the discovery of the discharge or spill of oil or a hazardous substance (30 TAC 327.5).

- To EPA Region 6 and TCEQ:
Within 15 days after the release or spill of hazardous waste (40 CFR 265.56 (j) and 30 TAC 335.115).

Reports to both regulatory agencies should be in narrative format and contain the type of information listed below.

1. Name and address of installation and/or owner.
2. Names and telephone numbers of IOSC.
3. Incident report.
4. Date and time of incident.
5. Time of official spill notification to the national response center and other regional and state officials.
6. Location of incident and the nature of the terrain at the location to include surface and subsurface drainage characteristics and relationships to water bodies (estimated extent of area affected such as miles of stream or acres of lake), including maps, flow diagrams, and topographical maps.
7. Weather conditions and how they affected response action.
8. Cause of incident and failure analysis of the system in which the failure occurred.
9. Type and estimated amount (barrels, gallons, pounds) of pollutant and the official size classification (minor, medium, major).
10. Actual damage and potential threat to human life, to property (private, state, or federal), and to plant or animal life.
11. Corrective action taken to eliminate source of pollution and to remove pollutant.
12. Additional preventive measures taken or contemplated to minimize the possibility of recurrence.
13. Assistance required.
14. Estimated completion date of remedial actions and anticipated effectiveness.
15. Estimated quantity and disposition of spilled material and contaminated soil.

16. Confirmation that emergency response equipment is back in operation before resuming operating activities.
17. Description of any problems encountered during implementation of this plan and an explanation of how the plan was, or will be, modified to prevent recurrence of the spill event.
18. Anticipated or actual reaction by the news media and public to the incident (potential for liability to be specified in the internal Army reports only).
19. Extent of injuries, if any.
20. A copy of the SPCCP, if appropriate.

5.2 CONTAINMENT AND CLEANUP

Cleanup for various spill situations shall involve the following general steps:

- Small spills shall be diked with absorbent material for containment. Once the spill is contained, the absorbent material shall be used to absorb the spill. The absorbent material shall then be placed into special waste containers for disposal.
- Large spills may be contained and pumped into 55-gallon drums and disposed of in accordance with the Installation Hazardous Waste Management Plan. The pump shall be decontaminated before reuse.

Spilled pollutants shall be collected to the maximum extent possible. The cleanup procedures shall be implemented in cooperation with the DSEF hazardous waste manager (HWM).

Absorbent and similar material shall be placed in 55-gallon drums, labeled, prepared for off-site transport, and turned in to the HWM at the FSH 90-day storage facility (Building 4055). Hazardous pollutants shall be collected in polyethylene-lined drums (see 49 CFR 178) or other approved drums under 49 CFR 172.101 or 102, labeled, and turned in to the HWM as outlined in the Installation Hazardous Waste Management Plan. A hazardous waste determination shall also be made in accordance with the Hazardous Waste Management Plan. Commercial chemical products that are "U" or "P" listed wastes (40 CFR 261.33(d)) become hazardous waste when

spilled into or on any land or water. The material safety data sheets and/or the chemical hazards response system should be consulted with regards to proper procedures and precautions.

According to the requirements outlined in 40 CFR 265.56(h)(1), the IOSC should ensure that no waste that may be incompatible with a released material is treated, stored, or disposed of in the area where the release occurred until cleanup procedures are completed. Also, before operations at the site resume in the areas where the incident occurred, FSH should notify the EPA regional administrator, TCEQ, and appropriate local authorities that they are in compliance with 40 CFR 265.56(h).

It is mandatory that detection of spills be reported promptly; failure to do so may result in a substantial fine from a regulatory agency. The person or persons discovering a spill of any size should take immediate action, if feasible, to control the spill and should immediately notify the IIRT (Fire Department) as discussed in this plan. After completion of an event that requires the use of emergency equipment, the IOSC should ensure that the equipment used is properly, thoroughly cleaned, decontaminated, and that any residue from the cleaning is properly disposed of. The IOSC is also responsible for ensuring that potentially incompatible wastes are not stored in the area of the spill until cleanup is complete. The IOSC shall provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water of any other material that results from the release. The EPA regional administrator and appropriate state and local officials shall be notified that these tasks have been accomplished.

5.3 ABATEMENT REQUIREMENTS FOR USTS OR ASTS

Upon confirmation of an actual release from a UST or AST, the following actions shall be taken as described in the regulations found in 30 TAC 334.71 – 85 and 30 TAC 350:

1. Report the release to TCEQ within 24 hours.
2. Stop any further release from the UST or AST system.
3. Mitigate fire and safety hazards.
4. Remove and properly dispose of visibly contaminated soil from the excavation zone.

5. Report initial corrective action taken, including a verification of tank repair or closure if appropriate, to the TCEQ within 20 days of confirmation or discovery of the release (30 TAC 334.77(a)).
6. Conduct an investigation to determine the presence of free product, and initiate free product removal, if necessary, as soon as practicable.
7. Within 45 days of a release confirmation from a UST or AST, submit a report to TCEQ that provides information from a site assessment (30 TAC 334.78).

5.4 EVACUATION PLAN

In the event of a major emergency, an established set of procedures shall be followed. The IOSC shall use the internal telephone system to notify key personnel of the nature of the emergency and recommended plan of action. Key personnel shall sound the local fire alarm at their facility to notify personnel of a major emergency. Evacuation of the installation is initiated only by the IOSC. Evacuation of a facility is initiated by the key personnel such as personnel from the Fire Department.

In the event an evacuation is called for by the IOSC, the following actions shall be taken:

1. Key personnel shall make notification at their facility using the local building fire alarm.
2. No further entry of visitors, contractors, or trucks should be permitted. All nonessential traffic within the post shall cease to allow safe exit of personnel and movement of emergency equipment.
3. All employees shall be accounted for by their immediate supervisors. Supervisors should designate certain roads as the safest exits for their employees and should also choose an alternate exit if the first choice is inaccessible. To assist in this endeavor, the IOSC should use the internal telephone system to call the area supervisor to inform him or her of the nature of the emergency.
4. Personnel, visitors, and contractors shall be asked to immediately leave.

5. During exit, each supervisor is responsible for keeping his or her group together. Immediately after exiting FSH property, the highest ranking supervisor shall prepare a list of all personnel.
6. No personnel shall remain on or re-enter the site unless specifically authorized by the IOSC. The IOSC assumes responsibility for those personnel within the site perimeter, which shall normally be only emergency response personnel.
7. Upon completion of the employee list by each supervisor, the IOSC shall be notified.
8. The site shall be re-entered only after clearance is given by the IOSC. At his or her direction, a signal or other notification shall be given for re-entry into the area.
9. In all questions of accountability, immediate supervisors should be held responsible for those persons reporting to them. Visitors are the responsibility of those persons administering the individual contractors. Truck drivers are the responsibility of the area supervisor where the trucks are loading or unloading.

Drills are held to practice the implementation of all of the above procedures as part of the general training effort. Evacuation of individual buildings should be rehearsed in annual fire drills. The evacuation route for a specific facility should be strategically posted throughout the respective facility. The evacuation route for Fort Sam Houston is shown on Figure 5-1, which is provided in the pocket of this document.

FACILITY 16-QUADRANGLE

Introduction

The Quadrangle area is used for military ceremonies and recreation. HAZMAT materials located in the basement of the quadrangle personnel and are accessible by authorized personnel only. The two diesel fuel tanks are located in the basement area.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 16	
Quadrangle	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Diesel fuel (2-250 gallon steel ASTs)	**
Safety precaution: Review appropriate MSDS for safety precautions.	
Probable spill route: Spills will be contained within containment area. Should spills escape containment area, they will enter a sump which is pumped to the city sanitary sewer.	
Existing spill prevention provisions: None	
Recommended spill prevention provisions: Provide spill response equipment for spills.	
Maximum rate of flow: 16 gpm.	
Contingency action: Assure spills are contained within containment area. Should a spill escape this area, contain the spill within the most immediate area. Prevent entrance to area sump by covering the sump with plastic and securing with sand bags. Collect contaminated materials in lined drum.	
Preventive maintenance: Area should be inspected in accordance with Section 6.0 of the SPCCP.	
Security: Facility remains locked at all times	

* The Iosc must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC;
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

No spill response equipment was observed at Facility 16.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 320-GYMNASIUM POOL

Introduction

The indoor pool at the Fort Sam Gymnasium is used by Fort Sam Active Duty Personnel, Civil Service, Qualified Contractors, and their dependents.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 320	
Gymnasium	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Chlorine (150 lb cylinders)	10 lbs
Safety precaution: Review appropriate MSDS for safety precautions.	
Probable spill route: Potential leaks could impact atmospheric conditions.	
Existing spill prevention provisions: None	
Recommended spill prevention provisions: Valves should be checked for leaks on a regular basis and the cylinders should be chained and secured. Repair kit should be provided for potential leaks.	
Contingency action: Stay upwind.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of round-the-clock manned rotation.	
Security: Storage building remains locked at all times.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

No spill response equipment was observed at Facility 320.

Evacuation Procedures

If a leak could potentially endanger the health of personnel in the vicinity of a leak, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the impacted area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility

at a safe distance from the impacted, shop personnel will assemble with their supervisor for roll call and further instructions.

Emergency Procedures for Chlorine

Detecting Chlorine Leaks: Only IIRT members should perform this task. To locate the chlorine leak, tie a cloth to the end of a stick, soak the cloth with ammonia-water, and hold close to the suspected area. A white cloud (ammonium chloride gas) will result, if there is any chlorine leakage. The concentration of chlorine may be quantified by using a colorimetric indicator tube and hand pump, i.e., Draeger Tube.

As soon as a leak is detected by the presence of chlorine in the air, immediate steps must be taken to correct the condition. When a chlorine leak occurs, the IIRT personnel equipped with a suitable breathing apparatus should investigate. All other persons should be kept away. If the leak is extensive, special effort must be made to clear personnel from the downwind path of the vapor plume. Chlorine is heavier than air and collects in low areas.

Controlling Chlorine Leaks:

Avoid Water. Never use water on a chlorine leak. The corrosive action of chlorine and water will always make a leak worse. Never immerse or throw a leaking container into a body of water.

Equipment and piping leaks: If a leak occurs in equipment or piping in which chlorine is being used, shut off the supply of chlorine, vent the chlorine off, and replace the defective part.

Cylinder valve leaks: Leaks around valve stems usually can be stopped by tightening the packing or gland by turning clockwise. If this does not stop the leak, close the container. If the container valve does not shut off, apply the outlet cap or plug.

Fire: In case of a fire, remove the chlorine containers from the fire zone immediately. If the containers cannot be removed from the fire, ensure they are not leaking and apply water to keep the containers cool. **Note:** Water should not be applied to containers that may be leaking. Keep all authorized personnel at a safe distance.

Buddy System: Under no circumstances should an individual enter a chlorine room alone, where a leaking cylinder is known to be present. It is advised that there should be a minimum of two personnel working on a leaking cylinder.

Cryogenic Properties

Liquifies at -35°C and room pressure. Freezing point is -101°C. Readily liquefied by pressure applied at room temperature. Density (as a liquid) 13.0lb/gal. Contact with unconfined liquid can cause frostbite by evaporative cooling. **Note:** Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

FACILITY 331 – AFFES SHOPETTE GAS STATION

Introduction

AFFES Shopette Gas Station is a full service gas station that provides refueling services for active duty and civilians on Fort Sam Houston.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 331	
AFFES Gas Station	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Unleaded, Premium Unleaded, and Super Unleaded Gasoline (3-10,000 gallon USTs)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: USTs are double-walled tanks. Spill kits are strategically placed around facility.	
Recommended spill prevention provisions: None	
Probable spill route: UST spills will be contained within the double-walled secondary feature of the UST.	
Contingency action: Shut off ignition sources. See Section 5.2 of the ISCP for specific UST mitigation actions to be followed by the installation.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Facility is locked during off – business hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC.
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Three 55-gallon drums containing absorbent material are located next to the gas pumps.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 350 – TOYLAND/FOUR SEASONS GARDEN STORE

Introduction

Toyland/Four Seasons Garden Store is an Army and Air Force Exchange Service (AAFES) operated department store servicing Armed Forces Personnel.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 350	
Toyland/Four Seasons Garden Store	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Pesticides/Fertilizers Paints <i>See attached table for current inventory as of 23 September, 2002.</i>	Contact installation HW coordinator **
Safety precautions: Review appropriate MSDS for safety precautions.	
Probable spill route: Spills would be contained within the store. Store has no floor drains.	
Existing spill prevention provisions: Stored inside building	
Recommended spill prevention provisions: Used/damaged pesticide/paint materials be stored in proper receptacle until disposed of.	
Contingency action: For pesticide spills, follow pesticide clean-up procedures. Assure spills are contained within the store. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis.	
Security: Store remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Chemicals at Facility 350

	Chemical Name	Type of Container
350 / Toyland/Four Seasons Garden Store	Pesticides/fertilizers:	various sizes
	Round Up 50% Sc	32 oz and 128 oz
	Round Up Sure Shot	16 oz
	Round Up 25%	16 oz, 32 oz, and 64 oz
	Round Up RTU	24 oz, 64 oz, and 128 oz
	WBG Crabgrass Killer	16 oz
	WBG Lawn Weed Killer	32 oz, 64 oz, and 128 oz
	WBG Chickweed	16 oz
	WBG Weed Killer	24 oz, 64 oz, and 128 oz
	Fungicide Daconil	1 lb
	Grass-B-Gon	24 oz
	Brush-B-Gon	16 oz, 24 oz, and 32 oz
	Groundclear Complete	32 oz
	Ortho Rose & Flower Insect	12 oz
	Rose Pride Orthenex	12 oz
	Rose Pride Funginex	12 oz
	Orthene Systemic Insect	12 oz
	Ant Killer Aerosol	aerosol cans
	Flying Insect Killer Aerosol	aerosol cans
	Hornet & Wasp Killer Aerosol	aerosol cans
	Home Defense In & Out	24 oz and 128 oz
	Ant-B-Gon	1.2 lb
	Bug-B-Gon	24 oz and 32 oz
	BBG Insect Granules	0.75 lb, 3.5 lb, and 8.8 lb
	BBG Yello Jacket Traps	strips
	BBG Outdoor Fly Traps	strips
	BBG Japanese Beetle Traps	box
	Bug-Geta Plus	2.25 lb, 3 lb, and 5 lb
	Voick Oil spray	12 oz
	Ortho-Klor Term/C. Ant	16 oz and 32 oz
	Moss-B-Gon	9.2 lb container
	Malathion	16 oz and 32 oz
	Orthene Fire Ant Killer	6 oz, 12 oz, and 17 oz
	Fire Ant Granules	3.5 lb and 7 lb
	Indoor Insect Fogger	16 oz aerosol
	Paints	2 gallon containers

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One –30 gallon drum with absorbent pads. Drum located in storage area.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility

at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

Emergency Procedures For Pesticide Spills

When a pesticide spill occurs, specific procedures should be followed for providing first aid, notifying proper authorities, and cleaning up and decontaminating the spill area. Personnel working with pesticides or in areas containing pesticide chemicals should be adequately trained for quick evacuation and proper spill prevention and emergency procedures as follows:

A. Identification

Determine the pesticide involved in the spill incident. Information such as formulation, percent active ingredient, and manufacturer's name and address should be obtained.

B. Safety and First Aid

All persons working with pesticides should be well trained in basic first aid and evacuation procedures. It must be emphasized that when managing any spill the most immediate concern is for the health and well being of persons in and around the immediate spill area.

First aid kits and personal protective equipment should be maintained at pest control shops and storage areas and carried in pest control vehicles. In addition, the telephone numbers of the local medical unit and poison control center should be posted in visible locations and always carried by pest control personnel when on the job.

C. Care of Injured

It is recognized that pesticide spill emergencies will differ, but the immediate concern should be to minimize contamination of personnel. Although the sequence may vary, the following basic procedures should be accomplished as rapidly as possible. PRIOR TO ENTERING A CONTAMINATED AREA, DON PERSONAL PROTECTIVE EQUIPMENT (PPE).

1. Quickly assess the spill to determine if personnel are involved.
2. Eliminate all sources of ignition (e.g., pilot lights, electric motors, gasoline engines) in order to prevent the threat of fire or explosion from flammable vapors (if present).
3. If personnel are involved, the rescuer should quickly don necessary protective equipment and remove the injured to a safe location upwind from the spill. If the spill occurs in an enclosed area, doors and windows should be opened to enhance ventilation of the area.

4. If necessary, remove contaminated clothing from the victim and/or rescuer, then wash affected areas of the body with soap and water. Administer additional first aid as required by the symptoms/signs and label, which may include flushing contaminated eyes with clean water for 15 minutes.
5. Obtain medical assistance for injured or contaminated persons. NOTE: Do not leave injured or incapacitated persons alone. Always instruct someone to stay with them until proper medical assistance is provided or a physician has been informed of the incident.

D. Site Security

Secure the spill site from entry by unauthorized personnel by roping off the area and posting warning signs. The boundary should be set at a safe distance from the spill. If necessary, obtain assistance from the base/installation's police or security unit.

E. Containment and Control

Spilled pesticides must be contained at the original site of the spill. The pesticide must be prevented from entering storm drains, wells, water systems, ditches, and navigable waterways by following these procedures:

1. Don appropriate protective equipment from a spill kit or the pest control shop.
2. Prevent further leakage by repositioning the pesticide container.
3. Prevent the spill from spreading by trenching or encircling the area with a dike of sand, absorbent material or, as a last resort, soil or rags.
4. Cover the spill. If the spill is liquid, use an absorbent material appropriate to the type of material. If dry material, use a polyethylene or plastic tarpaulin and secure. NOTE: use absorbent materials sparingly as they also must be disposed of as wastes.

F. Pesticide Spill Reporting

Not all pesticide spills warrant reporting to EPA or the Coast Guard. However, spills that involve pesticides equal to or exceeding the designated reportable quantity (RQ) specified in EPA's Clean Water Act list of hazardous substances and the Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances (see Appendix B for RQs of major pesticides) must be reported. All pesticide spills should be reported in accordance with each service's regulations (Air Force, AFR 19-8; Navy OPNAV Notice 5090.1A, Environmental Protection; Army, AR 200-1; Marine Corps, MCO P5090.2), and the base/installation's spill contingency instruction. Pesticide spills

should be reported to the spill coordinator designated in the base/installation's spill contingency instruction. The coordinator in turn will report the spill to EPA or the Coast Guard, as required.

G. Cleanup

Adequate cleanup of spilled pesticides is essential in order to remove any health or environmental hazards. When cleaning up pesticide spills, it is advisable NOT TO WORK ALONE and to make sure the area is properly ventilated and that appropriate protective equipment is used by all personnel. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses. However, if the release is not an incidental release, only qualified, trained emergency personnel should undertake cleanup operations. Minimum initial training and refresher training requirements are specified in the Occupational Safety and Health Standards of 29 CFR 1910.120, as described in Section 6.7 of the SPCCP.

1. Dry spills (dusts, wettable powders, granular formulations) should be picked up in the following manner:
 - a. Immediately cover powders, dusts, or granular materials to prevent them from becoming airborne. This can be done by placing a polyethylene or plastic tarpaulin over the spilled material. Weight the ends of the tarp, especially the end facing into the wind. Begin cleanup operations by systematically rolling up the tarp while simultaneously sweeping up the spilled pesticide using a broom, shovel, or dust pan. While sweeping, avoid brisk movements in order to keep the dry pesticide from becoming airborne. If indoors, a cover may not be necessary. When practical, light sprinkling with water may be used instead of a cover.
 - b. Collect the pesticide and place in plastic or metal containers. Heavy-duty plastic bags should be used as a last resort as many pesticides may eat through the plastic bags. Properly secure and label the bags, identifying the pesticides and possible hazards. Set the bags aside for later disposal.
2. Liquid spills should be cleaned up by placing an appropriate absorbent material (floor-sweeping compound, sawdust, sand, etc.) over the spilled pesticide. Work the absorbent into the spill using a broom or other tool to force the absorbent into close contact with the spilled pesticide. Collect all spent absorbent material and place into a properly labeled leakproof container.

3. Depending upon the spilled substance, contaminated soil may have to be removed to depths where no detectable amounts of the substance are evident. Residues may need to be placed in properly labeled leakproof containers. For this determination, contact the installation hazardous waste coordinator.

H. Decontamination

Decontamination solutions can be used for decontaminating surfaces and materials where spills of dust, granular, wettable powder, or liquid pesticides have occurred. However, the bulk of the spilled pesticide should be cleaned up or removed before applying any decontaminant. After cleaning up the bulk material, apply the appropriate decontamination solution and allow one to six hours reaction time before using an absorbent material.

Depending on the location of the spill and the pesticide spilled, chlorine bleach, caustic soda (lye, sodium hydroxide) or lime can be used to effectively decontaminate most spill areas. Many pesticides, especially the organophosphate pesticides, decompose when treated with lye or lime. Fewer pesticides are decomposed by bleach (sodium hypochlorite)

Dry decontaminants should be spread thinly and evenly over the spill area. Then, using a watering can, lightly sprinkle the area with water to activate the decontaminant. Liquid decontaminants should be premixed and applied with a watering can to the spill area. Decontaminants should be applied in amounts no greater than specified in Section J of this Appendix.

The preceding procedures must be repeated until all the spilled pesticide is removed. Clean all equipment used for spill cleanup with detergent and appropriate decontaminants. Collect all spent decontaminants and rinse water and place them in labeled leakproof containers. Clothing and gloves that cannot be decontaminated must be placed in leakproof containers for proper disposal. Depending on the particular surface, the following additional procedures may need to be accomplished as specified.

1. Nonporous surfaces should be washed with detergent and water. The appropriate decontamination solution should be thoroughly worked into the surface using a long-handled broom, scrub brush, or other equipment as needed. Then the decontamination solution is soaked up using absorbent material. The spent absorbent material is then placed into a labeled leakproof container for disposal.
2. Soil. If pesticide containers have leaked or if pesticides have been spilled on a soil surface, depending upon the spilled substance, contaminated soil may have to be removed to depths where no detectable amounts of the substance are evident. Residues may need to be placed in properly labeled leakproof containers.

3. Porous materials such as wood may not be adequately decontaminated. If contamination is great enough to warrant, they must be removed and replaced with comparable new materials.
4. Tools, vehicles, equipment and any contaminated metal or other nonporous objects can be readily decontaminated using detergent and the appropriate decontamination solution (refer to Section J). However, smaller quantities of the decontamination solution may be required.

The decontamination solution can be applied to contaminated equipment by soaking the equipment in a pail filled with solution or using a scrub brush. All tools and surfaces must be thoroughly rinsed with sparing amounts of clean water. All rinse water and spent decontamination solution should be collected in drip pans or other suitable containers and transferred to a properly labeled leakproof drum for disposal.

I. Disposal

All contaminated materials, including cloth, soil, wood, etc., that cannot be effectively decontaminated as described in this guide must be removed and placed in a sealed leakproof container. All containers must be properly labeled and transported in accordance with Department of Transportation (DOT) regulations by EPA-permitted hazardous waste haulers for disposal in a hazardous waste disposal facility (incinerator, landfill site, etc.) under current EPA or state permit. Information about specific disposal sites, container labeling, rinsing, and disposal is to be coordinated with FSH's hazardous waste coordinator on disposal procedures.

J. Pesticide Decontaminants

Depending on the particular pesticide, chlorine bleach, caustic soda (lye, sodium hydroxide) or lime can be used to decontaminate most spills. For other decontamination/degradation options, refer to the document Decontaminating Accidental Spills of Pesticides, National Agricultural Chemicals, October 1969, pp 8-9. Many pesticides, especially the organophosphate pesticides, decompose when treated with lye or lime. Fewer pesticides are decomposed by bleach (sodium hypochlorite). Other pesticides cannot be effectively decontaminated and should only be treated with detergent and water to help in removal. Some examples of common pesticides that can be decontaminated are listed below:

<u>Use Lye or Lime for:</u>	<u>Use Chlorine Bleach for:</u>	<u>Do not use any decontamination Chemicals for these pesticides:</u>
Atrazine	Calcium cyanamide	Alachlor
Propoxur	Calcium Cyanide	Chloramben
Captan	Chlorpyrifos	Chlordane and other
Carbaryl	Fonophos	Chlorinated hydrocarbons
Diazinon	Merphos	Diuron
Temephos	Lethane	2,4-D
Naled		Maneb
2,4,5-T		Methoxychlor
Malathion		Pentachlorophenol
Acephate		Picloram
Sodium fluoride		Toxaphene
TCA		Trifluralin
Rotenone		
Silvex		
Cyanazine		
Dalapon		
Dichlorvos		
Dimethoate		
EPN		

USE

NOTE: Do not store near to, or mix chlorine bleach with, amine-containing pesticides. Co-mingling of these materials can cause a violent reaction resulting in fire. Calcium hypochlorite is not recommended as a decontaminating agent because of the fire hazard.

A practical guide for applying decontaminants is as follows:

<u>Percent Active Ingredient</u>	<u>Amount of Decontaminant needed</u>
1-10	Use an amount of decontaminant equal to the quantity of pesticide spilled.
11-79	Use an amount of decontaminant equal to 1.5 times the quantity of pesticide spilled.
80-100	The amount of decontaminant used should be equal to twice the quantity of spilled pesticide.

WARNING: There is a slight potential for creating toxic by-products when using these procedures. In critical situations, samples of affected components (soil, sediment, water, etc.)

should be taken and sent to a laboratory for analysis in order to determine if decontamination was successful.

Lye or Lime

Pesticides amenable to treatment using lye or lime may be decontaminated when mixed with an excess quantity of either of these materials. These materials can be used in either the dry form or in solution. A 10% solution of lye or lime can be made as follows:

Mixing directions: Mix 0.75 pounds of lye or lime in 3.5 quarts of water to make 1 gallon of 10% solution.

Caution: Caustic soda (lye) can cause severe eye damage to persons not properly protected. Protect against contact by wearing unventilated goggles, long-sleeved work clothes with coveralls, neoprene gloves, and chemical-resistant apron. An approved respirator also should be worn. Do not use lye on aluminum surfaces.

Bleach Treatment. Certain pesticides can be degraded by treatment with bleach (sodium hypochlorite). Generally, one gallon of household bleach, which contains approximately 5 percent sodium hypochlorite, should be used per pound or gallon of pesticide spilled. If bleaching powder is used, first mix with water (one gallon of water per pound of bleach) and add a small amount of liquid detergent. For safety purposes, a preliminary test resulting from this test must be observed to make sure reaction is not too vigorous.

NOTE: Do not store near to, or mix chlorine bleach with, amine-containing pesticides. Co-mingling of these materials can cause a violent reaction resulting in fire. Calcium hypochlorite is not recommended as a decontaminating agent because of the fire hazard.

FACILITY 1521- 90TH RESERVE SUPPORT COMMAND (RSC)

Introduction

The 1521-90th RSC is a reserve facility that is used as a tactical vehicle maintenance facility. Vehicles used by the reserve unit are serviced and maintained at this location.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 1521	
90th RSC	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste oil (55 gallon drums)	**
MOGAS (5 gallon containers)	**
DOT 5 - brake fluid (55 gallon drums)	**
Waste antifreeze (55 gallon drums)	5000 lbs
Mineral spirits (30 gallon drum)	**
Gasoline (5 gallon containers)	**
Safety Precautions: Review appropriate MSDS for safety precautions.	
Probable spill route: Facility is equipped with a water recycling system. The water recycling system will capture spills via floor grates.	
Existing spill prevention provisions: Drums and cans are stored in hazardous materials storage building w/ secondary containment. Antifreeze is recycled. Mineral spirits are recycled and serviced by an outside contractor. Spill kits are strategically placed around facility. Employees are aware of spill procedures.	
Recommended spill prevention provisions: None	
Contingency action: Shut off ignition sources. Spills will be captured by water recycling system.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Hazardous materials storage building is locked during off-duty hours. Facility remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Two- 30 gallon drums containing absorbent pig socks, absorbent material, and absorbent pads. Five-small spill kits containing absorbent pads and disposal bags. The drums are located inside the hazardous storage materials building. The spill kits are located at each vehicle maintenance cell, next to the hazardous materials containers.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 2190- WATER TREATMENT PLANT

Introduction

The Water Treatment Plant treats the drinking water that is distributed throughout FSH.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 2190	
Water Treatment Plant	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Chlorine (150 lb cylinders)	10 lbs
Calcium hypochlorite tablets (5 gallon container)	10 lbs
Diesel fuel (500 gallon AST and day tank)	**
Paint Materials (aerosol cans)	**
Hydraulic Oil (5 gallon containers)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Probable spill route: Spills from AST will be contained within its double wall containment feature. Spills from day tanks will be contained within generator storage building.	
Existing spill prevention provisions: AST is double-walled steel tank	
Recommended spill prevention provisions: Install secondary containment for day tank. Valves should be checked for leaks on a regular basis and the cylinders should be chained and secured. Repair kit should be provided for potential leaks.	
Maximum rate of flow for day tank: 3 gpm.	
Contingency action: For calcium hypochlorite spills, use a clean shovel to place spilled and contaminated material into a clean, dry container. Cover loosely and move containers from spill area. See Emergency Procedures for Chlorine	
Preventive maintenance: Area is visually inspected on a regular basis as a result of round-the-clock manned rotation.	
Security: Employee is on-duty 24 hours a day.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One-55 gallon drum containing absorbent material and absorbent "Pig Socks". The drum is located inside the building where the day tank is located.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility

at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

Emergency Procedures for Chlorine

Detecting Chlorine Leaks: Only IIRT members should perform this task. To locate the chlorine leak, tie a cloth to the end of a stick, soak the cloth with ammonia-water, and hold close to the suspected area. A white cloud (ammonium chloride gas) will result, if there is any chlorine leakage. The concentration of chlorine may be quantified by using a colorimetric indicator tube and hand pump, i.e., Draeger Tube.

As soon as a leak is detected by the presence of chlorine in the air, immediate steps must be taken to correct the condition. When a chlorine leak occurs, the IIRT personnel equipped with a suitable breathing apparatus should investigate. All other persons should be kept away. If the leak is extensive, special effort must be made to clear personnel from the downwind path of the vapor plume. Chlorine is heavier than air and collects in low areas.

Controlling Chlorine Leaks:

Avoid Water. Never use water on a chlorine leak. The corrosive action of chlorine and water will always make a leak worse. Never immerse or throw a leaking container into a body of water.

Equipment and piping leaks: If a leak occurs in equipment or piping in which chlorine is being used, shut off the supply of chlorine, vent the chlorine off, and replace the defective part.

Cylinder valve leaks: Leaks around valve stems usually can be stopped by tightening the packing or gland by turning clockwise. If this does not stop the leak, close the container. If the container valve does not shut off, apply the outlet cap or plug.

Fire: In case of a fire, remove the chlorine containers from the fire zone immediately. If the containers cannot be removed from the fire, ensure they are not leaking and apply water to keep the containers cool. **Note:** Water should not be applied to containers that may be leaking. Keep all authorized personnel at a safe distance.

Buddy System: Under no circumstances should an individual enter a chlorine room alone, where a leaking cylinder is known to be present. It is advised that there should be a minimum of two personnel working on a leaking cylinder.

Cryogenic Properties

Liquifies at -35°C and room pressure. Freezing point is -101°C. Readily liquefied by pressure applied at room temperature. Density (as a liquid) 13.0lb/gal. Contact with unconfined liquid can cause frostbite by evaporative cooling. **Note:** Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

FACILITY 2382 – 147TH MEDICAL LOGISTICS (MED LOG) MOTOR POOL

Introduction

Facility 2382 is where all routine maintenance and evaluations are conducted for those vehicles designated to the 147th Med Log Squadron.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 2382	
147th Med Log Motor Pool	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste oil, diesel fuel (55 gallon drums)	**
Waste antifreeze (55 gallon drums)	5,000 lbs
Antifreeze (55 gallon drums)	5,000 lbs
DOT 5 Brake fluid (0.5 and 1.0 Liter containers)	**
Hydraulic fluid (5 gallon drums)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Probable spill route: Spills of waste material will be contained within secondary container and curbed area. Product spills will be contained within hazardous materials storage building.	
Existing spill prevention provisions: All drums are stored in enclosed Polypacks or inside a hazardous materials storage building with secondary containment.	
Recommended spill prevention provisions: None	
Contingency action: Assure spills are contained within secondary containers and/or curbed areas, or hazardous materials storage building. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Facility is locked during off-duty hours and is manned during on-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Two - 30 gallon drums containing absorbent material and absorbent pads. Four small spill kits containing absorbent pads and disposal bags. The drums are located inside the hazardous storage materials building. The spill kits are located at each vehicle maintenance cell.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 2411- AUTO HOBBY SHOP

Introduction

The Auto Hobby Shop is a self-service auto maintenance and repair shop. All patrons using the facility are responsible for clean-up of the work bay utilized and disposal of materials used. Several waste receptacles have been strategically placed around the facility to encourage proper waste disposal. These areas need to be inspected on a routine basis to ensure compliance with the SPCCP.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 2411	
Auto Hobby Shop	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste oil (300 gallon AST) Antifreeze (55 gallon drums)	** 5,000 lbs
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Drums are stored in enclosed Polypacks or inside a hazardous materials storage building with secondary containment. Some drums are stored within a concrete diked area.	
Recommended spill prevention provisions: Service AST's on routine schedule. Implement and document daily/weekly inspection checklist, as appropriate. Ensure that drain valve in concrete dike area is sealed	
Probable spill route: Spills will enter trench which is routed to an oil-water separator. Antifreeze will bypass the oil-water separator and be discharged to the city sanitary sewer system.	
Contingency action: Assure antifreeze spills are contained within the most immediate area. Cover trench with plastic and secure with sand bags placed on top. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Facility is locked during post off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Four- 55 gallon drums containing absorbent pig socks, absorbent material, and absorbent pads. The drums are located inside the building at each vehicle maintenance cell.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 2610 – ARMY AND AIR FORCE EXCHANGE SERVICE (AAFES) SERVICE STATION

Introduction

AAFES Fueling station is a full-service fueling and maintenance facility.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 2610	
AAFES Fueling Station	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Mineral spirits (55 gallon drums)	**
Waste Oil (500 gallon AST)	**
Motor Oil (250 gallon AST)	**
Diesel fuel (1 - 10,000 gallon UST)	**
Gasoline (3 - 10,000 gallon USTs)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Overflow from AST directed toward oil-water separator.	
Recommended spill prevention provisions: None	
Probable spill route: Spills of mineral spirits and motor oil will occur inside the service bay and enter an oil-water separator. Spills of waste oil will be contained within the double-walled secondary containment feature of the AST. UST spills will be contained within the double-walled secondary feature of the UST.	
Contingency action: Shut off ignition sources. Assure spill is contained within the service bay and is routed to the oil-water separator. Collect all spilled waste and contaminated material in lined drum. See Section 5.2 of the ISCP for specific UST mitigation actions to be followed by the installation.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Facility remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One - 55 gallon drum containing absorbent pig socks, absorbent material, and absorbent pads. The drums are located inside the service station garage between the two vehicle maintenance cells.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 2630- VETERINARY LAB AND X-RAY ROOM

Introduction

The Veterinary Lab is where all laboratory tests for those pets belonging to Fort Sam Houston Military personnel are performed and analyzed. The X-Ray room is used to perform necessary X-ray's for animals required to have them.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 2630	
Veterinary Lab	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Diesel fuel (500 gallon UST and 50 gallon day tank)	**
Waste developer fixative (1 gallon containers) made up of Hydroquinone and 4-(Methylamino) Phenol Sulfate	100 lbs
Isopropynol (1 gallon containers)	5000 lbs
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Product is stored inside curbed storage room. Day tank is located inside boiler room and is made of steel. UST is a double-walled tank.	
Recommended spill prevention provisions: Provide spill kit for facility.	
Probable spill route: Waste spills will be contained within lab area if spills occur in the lab, as this area has no floor drains. Product spills will be contained within a curbed storage room. Day tank spills will escape the generator storage building and go to surface drainage. UST spills will be contained within the double-walled secondary containment feature of the UST.	
Maximum rate of flow for day tank: 3 gpm.	
Contingency action: Assure spills are contained within lab area and/or curbed storage room. Use sorbent material to contain fuel spills. Collect all spilled waste and contaminated materials in lined drum. See Section 5.2 for specific UST mitigation actions.	
Preventive maintenance: Areas are visually inspected on a regular basis as a result of daily usage. Generator building is formally inspected on a weekly basis.	
Security: Lab is locked during off-duty hours. Storage room remains locked at all times. Generator building remains locked at all times.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

No spill response equipment was observed at this location.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 2631- VETERINARY LAB

Introduction

The Veterinary Lab is where all laboratory tests for those pets belonging to Fort Sam Houston Military personnel are performed and analyzed.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 2631	
Veterinary Lab	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Ethyl Acetate (1 gallon containers)	5000 lbs
Acetone (1 liter containers)	5000 lbs
Methyl Alcohol (1 gallon containers)	5000 lbs
Formaldehyde (1 gallon containers)	100 lbs
Hexane (1 liter containers)	5000 lbs
Safety precautions: Review appropriate MSDS for safety precautions.	
Probable spill route: Waste spills will be contained within lab area if spills occur in the lab, as this area has no floor drains. Product spills will be contained within a curbed storage room.	
Existing spill prevention provisions: Product is stored inside curbed storage room. Spill kits are provided.	
Recommended spill prevention provisions: None	
Maximum rate of flow for day tank: .	
Contingency action: Assure spills are contained within lab area and/or curbed storage room. Use sorbent material to contain fuel spills. Collect all spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Areas are visually inspected on a regular basis as a result of daily usage.	
Security: Lab is locked during off-duty hours. Storage room remains locked at all times. Generator building remains locked at all times.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Four small spill kits containing absorbent pads, disposal bags, and neutralizing agents. The spill kits are located next to each hazardous materials storage locker.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 2841 – ARMY MEDICAL (AMED) SCHOOL RADIOLOGY LAB

Introduction

The AMED School is a full service medical training facility. The Radiology lab is used for training purposes only. Chemical quantities used in this facility are minimal as they are utilized during the training process.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 2841	
AAMED School Radiology and Photo Lab	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Acetic acid (1 gallon containers)	5,000 lbs
Waste developer fixative (1 gallon containers) made up of Hydroquinone and 4-(Methylamino) Phenol Sulfate	100 lbs
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: All chemical materials are stored in locked, flammable locker.	
Recommended spill prevention provisions: Provide spill kit for facility.	
Probable spill route: Spills will be contained within lab. Lab contains no floor drains.	
Contingency action: Shut off ignition sources. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of round-the-clock manned rotation.	
Security: Lab remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

No spill response equipment was observed at this location.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 2912 – DIRECTORATE OF COMMUNITY ACTIVITIES BUSINESS CENTER (CABC) GOLF CART MAINTENANCE

Introduction

The CABC Golf Maintenance facility stores and maintains all golf carts belonging to the Fort Sam Houston. Additionally, some grounds equipment is stored at the facility.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 2912	
CABC Golf Cart Maintenance	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste oil	**
Waste antifreeze	5,000 lbs
Gasoline (AST- 1,000 gallon tank)	**
Mineral Spirits	**
Paint Materials	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Chemicals stored in flammable locker. AST located within concrete diked area with drain valve. Overflow would drain to oil-water separator. Spill kit provided.	
Recommended spill prevention provisions: Drums need to stored on secondary containment or Polypack container. Additional spill kits should be provided.	
Probable spill route: Gasoline spills will be contained within the secondary containment area. Solvent spills will enter the shop floor drain which is routed to an oil-water separator.	
Contingency action: Shut off ignition sources. Assure spills are contained within secondary containers. For gasoline spills, assure product is contained within diked area. Collect all spilled waste and contaminated materials in lined drum. Solvent spills will be captured in the oil-water separator.	
Preventive maintenance: Area is inspected on a regular basis.	
Security: AST remain locked at all times. Shop remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One 30 gallon drum containing absorbent material was located inside building next to the flammable storage locker.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 3100- CABC GOLF COURSE MAINTENANCE

Introduction

The CABC Golf Maintenance facility stores and maintains all lawn mowers and pesticides belonging to Fort Sam Houston. Additional grounds equipment is stored at the facility.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 3100	
CABC Golf Course Maintenance	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Oils, mineral spirits (30 and 55 gallon drums)	**
Diesel fuel (Two AST's – 550 gallon tanks)	**
Waste oil (UST – 550 gallon tank)	**
Algaecides/Herbicides/Insecticides/Pesticides:	
Copper sulfate (1 gallon containers)	5000 lb
Dichlobenil (1 gallon containers)	100 lbs
Chlorpyrifos (1 gallon containers)	1 lb
Lead Acid Batteries	**
Antifreeze (55 gallon drums)	5000 lbs
Paint Thinners (5 gallon containers)	**
Safety precaution: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Chemicals stored in flammable locker. Antifreeze stored in drums and stored on secondary containment. Waste oil collected in UST which is double-walled. Diesel fuel tanks are stored within dike. Overflow would drain to oil-water separator. Spill kits are available.	
Recommended spill prevention provisions: Dike is not impervious to spills and needs to be fixed. Construct a concrete pad or berm. Additional spill kits should be provided for the facility.	
Probable spill route: Oil and mineral spirits spills will occur inside the service bay and will enter an oil-water separator before discharge to the city sanitary sewer system. Fuel spills will not be contained within the earthen dike. This dike is impervious to spills and will eventually leak to surface drainage. Spilled oil is collected in a UST and any spills of this oil will be contained within the double-walled secondary containment feature of the UST.	
Contingency action: For pesticide spills, review emergency procedures at the end of this facility-specific plan. For all others, assure spills are contained within the service bay and are routed to the oil-water separator. Assure fuel spills are contained within the most immediate area by temporarily diking the surrounding area with sand bags. Collect all spilled waste and contaminated materials in lined drum. See Section 5.2 of the ISCP for specific UST mitigation actions for the installation.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: The facility is surrounded by a gate which remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Two- 30 gallon drums containing absorbent material and absorbent pads. The drums are golf course maintenance facility next to the hazardous materials storage.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their

operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

Emergency Procedures For Pesticide Spills

When a pesticide spill occurs, specific procedures should be followed for providing first aid, notifying proper authorities, and cleaning up and decontaminating the spill area. Personnel working with pesticides or in areas containing pesticide chemicals should be adequately trained for quick evacuation and proper spill prevention and emergency procedures as follows:

A. Identification

Determine the pesticide involved in the spill incident. Information such as formulation, percent active ingredient, and manufacturer's name and address should be obtained.

B. Safety and First Aid

All persons working with pesticides should be well trained in basic first aid and evacuation procedures. It must be emphasized that when managing any spill the most immediate concern is for the health and well being of persons in and around the immediate spill area.

First aid kits and personal protective equipment should be maintained at pest control shops and storage areas and carried in pest control vehicles. In addition, the telephone numbers of the local medical unit and poison control center should be posted in visible locations and always carried by pest control personnel when on the job.

C. Care of Injured

It is recognized that pesticide spill emergencies will differ, but the immediate concern should be to minimize contamination of personnel. Although the sequence may vary, the following basic procedures should be accomplished as rapidly as possible. **PRIOR TO ENTERING A CONTAMINATED AREA, DON PERSONAL PROTECTIVE EQUIPMENT (PPE).**

1. Quickly assess the spill to determine if personnel are involved.
2. Eliminate all sources of ignition (e.g., pilot lights, electric motors, gasoline engines) in order to prevent the threat of fire or explosion from flammable vapors (if present).
3. If personnel are involved, the rescuer should quickly don necessary protective equipment and remove the injured to a safe location upwind from the spill. If the

spill occurs in an enclosed area, doors and windows should be opened to enhance ventilation of the area.

4. If necessary, remove contaminated clothing from the victim and/or rescuer, then wash affected areas of the body with soap and water. Administer additional first aid as required by the symptoms/signs and label, which may include flushing contaminated eyes with clean water for 15 minutes.
5. Obtain medical assistance for injured or contaminated persons. NOTE: Do not leave injured or incapacitated persons alone. Always instruct someone to stay with them until proper medical assistance is provided or a physician has been informed of the incident.

D. Site Security

Secure the spill site from entry by unauthorized personnel by roping off the area and posting warning signs. The boundary should be set at a safe distance from the spill. If necessary, obtain assistance from the base/installation's police or security unit.

E. Containment and Control

Spilled pesticides must be contained at the original site of the spill. The pesticide must be prevented from entering storm drains, wells, water systems, ditches, and navigable waterways by following these procedures:

1. Don appropriate protective equipment from a spill kit or the pest control shop.
2. Prevent further leakage by repositioning the pesticide container.
3. Prevent the spill from spreading by trenching or encircling the area with a dike of sand, absorbent material or, as a last resort, soil or rags.
4. Cover the spill. If the spill is liquid, use an absorbent material appropriate to the type of material. If dry material, use a polyethylene or plastic tarpaulin and secure. NOTE: use absorbent materials sparingly as they also must be disposed of as wastes.

F. Pesticide Spill Reporting

Not all pesticide spills warrant reporting to EPA or the Coast Guard. However, spills that involve pesticides equal to or exceeding the designated reportable quantity (RQ) specified in EPA's Clean Water Act list of hazardous substances and the Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances (see Appendix B for RQs of major pesticides) must be reported. All pesticide spills should be reported in accordance with each service's regulations (Air Force, AFR 19-8; Navy

OPNAV Notice 5090.1A, Environmental Protection; Army, AR 200-1; Marine Corps, MCO P5090.2), and the base/installation's spill contingency instruction. Pesticide spills should be reported to the spill coordinator designated in the base/installation's spill contingency instruction. The coordinator in turn will report the spill to EPA or the Coast Guard, as required.

G. Cleanup

Adequate cleanup of spilled pesticides is essential in order to remove any health or environmental hazards. When cleaning up pesticide spills, it is advisable NOT TO WORK ALONE and to make sure the area is properly ventilated and that appropriate protective equipment is used by all personnel. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses. However, if the release is not an incidental release, only qualified, trained emergency personnel should undertake cleanup operations. Minimum initial training and refresher training requirements are specified in the Occupational Safety and Health Standards of 29 CFR 1910.120, as described in Section 6.7 of the SPCCP.

1. Dry spills (dusts, wettable powders, granular formulations) should be picked up in the following manner:
 - a. Immediately cover powders, dusts, or granular materials to prevent them from becoming airborne. This can be done by placing a polyethylene or plastic tarpaulin over the spilled material. Weight the ends of the tarp, especially the end facing into the wind. Begin cleanup operations by systematically rolling up the tarp while simultaneously sweeping up the spilled pesticide using a broom, shovel, or dust pan. While sweeping, avoid brisk movements in order to keep the dry pesticide from becoming airborne. If indoors, a cover may not be necessary. When practical, light sprinkling with water may be used instead of a cover.
 - b. Collect the pesticide and place in plastic or metal containers. Heavy-duty plastic bags should be used as a last resort as many pesticides may eat through the plastic bags. Properly secure and label the bags, identifying the pesticides and possible hazards. Set the bags aside for later disposal.
2. Liquid spills should be cleaned up by placing an appropriate absorbent material (floor-sweeping compound, sawdust, sand, etc.) over the spilled pesticide. Work the absorbent into the spill using a broom or other tool to force the absorbent into

close contact with the spilled pesticide. Collect all spent absorbent material and place into a properly labeled leakproof container.

3. Depending upon the spilled substance, contaminated soil may have to be removed to depths where no detectable amounts of the substance are evident. Residues may need to be placed in properly labeled leakproof containers. For this determination, contact the installation hazardous waste coordinator.

H. Decontamination

Decontamination solutions can be used for decontaminating surfaces and materials where spills of dust, granular, wettable powder, or liquid pesticides have occurred. However, the bulk of the spilled pesticide should be cleaned up or removed before applying any decontaminant. After cleaning up the bulk material, apply the appropriate decontamination solution and allow one to six hours reaction time before using an absorbent material.

Depending on the location of the spill and the pesticide spilled, chlorine bleach, caustic soda (lye, sodium hydroxide) or lime can be used to effectively decontaminate most spill areas. Many pesticides, especially the organophosphate pesticides, decompose when treated with lye or lime. Fewer pesticides are decomposed by bleach (sodium hypochlorite)

Dry decontaminants should be spread thinly and evenly over the spill area. Then, using a watering can, lightly sprinkle the area with water to activate the decontaminant. Liquid decontaminants should be premixed and applied with a watering can to the spill area. Decontaminants should be applied in amounts no greater than specified in Section J of this Appendix.

The preceding procedures must be repeated until all the spilled pesticide is removed. Clean all equipment used for spill cleanup with detergent and appropriate decontaminants. Collect all spent decontaminants and rinse water and place them in labeled leakproof containers. Clothing and gloves that cannot be decontaminated must be placed in leakproof containers for proper disposal. Depending on the particular surface, the following additional procedures may need to be accomplished as specified.

1. Nonporous surfaces should be washed with detergent and water. The appropriate decontamination solution should be thoroughly worked into the surface using a long-handled broom, scrub brush, or other equipment as needed. Then the decontamination solution is soaked up using absorbent material. The spent absorbent material is then placed into a labeled leakproof container for disposal.
2. Soil. If pesticide containers have leaked or if pesticides have been spilled on a soil surface, depending upon the spilled substance, contaminated soil may have to be

removed to depths where no detectable amounts of the substance are evident. Residues may need to be placed in properly labeled leakproof containers.

3. Porous materials such as wood may not be adequately decontaminated. If contamination is great enough to warrant, they must be removed and replaced with comparable new materials.
4. Tools, vehicles, equipment and any contaminated metal or other nonporous objects can be readily decontaminated using detergent and the appropriate decontamination solution (refer to Section J). However, smaller quantities of the decontamination solution may be required.

The decontamination solution can be applied to contaminated equipment by soaking the equipment in a pail filled with solution or using a scrub brush. All tools and surfaces must be thoroughly rinsed with sparing amounts of clean water. All rinse water and spent decontamination solution should be collected in drip pans or other suitable containers and transferred to a properly labeled leakproof drum for disposal.

I. Disposal

All contaminated materials, including cloth, soil, wood, etc., that cannot be effectively decontaminated as described in this guide must be removed and placed in a sealed leakproof container. All containers must be properly labeled and transported in accordance with Department of Transportation (DOT) regulations by EPA-permitted hazardous waste haulers for disposal in a hazardous waste disposal facility (incinerator, landfill site, etc.) under current EPA or state permit. Information about specific disposal sites, container labeling, rinsing, and disposal is to be coordinated with FSH's hazardous waste coordinator on disposal procedures.

J. Pesticide Decontaminants

Depending on the particular pesticide, chlorine bleach, caustic soda (lye, sodium hydroxide) or lime can be used to decontaminate most spills. For other decontamination/degradation options, refer to the document Decontaminating Accidental Spills of Pesticides, National Agricultural Chemicals, October 1969, pp 8-9. Many pesticides, especially the organophosphate pesticides, decompose when treated with lye or lime. Fewer pesticides are decomposed by bleach (sodium hypochlorite). Other pesticides cannot be effectively decontaminated and should only be treated with detergent and water to help in removal. Some examples of common pesticides that can be decontaminated are listed below:

<u>Use Lye or Lime for:</u>	<u>Use Chlorine Bleach for:</u>	<u>Do not use any Decontamination Chemicals for these Pesticides:</u>
Atrazine	Calcium cyanamide	Alachlor
Propoxur	Calcium Cyanide	Chloramben
Captan	Chlorpyrifos	Chlordane and other
Carbaryl	Fonophos	Chlorinated hydrocarbons
Diazinon	Merphos	Diuron
Temephos	Lethane	2,4-D
Naled		Maneb
2,4,5-T		Methoxychlor
Malathion		Pentachlorophenol
Acephate		Picloram
Sodium fluoride		Toxaphene
TCA		Trifluralin
Rotenone		
Silvex		
Cyanazine		
Dalapon		
Dichlorvos		
Dimethoate		
EPN		

USE

NOTE: Do not store near to, or mix chlorine bleach with, amine-containing pesticides. Co-mingling of these materials can cause a violent reaction resulting in fire. Calcium hypochlorite is not recommended as a decontaminating agent because of the fire hazard.

A practical guide for applying decontaminants is as follows:

<u>Percent Active Ingredient</u>	<u>Amount of Decontaminant needed</u>
1-10	Use an amount of decontaminant equal to the quantity of pesticide spilled.
11-79	Use an amount of decontaminant equal to 1.5 times the quantity of pesticide spilled.
80-100	The amount of decontaminant used should be equal to twice the quantity of spilled pesticide.

WARNING: There is a slight potential for creating toxic by-products when using these procedures. In critical situations, samples of affected components (soil, sediment, water, etc.) should be taken and sent to a laboratory for analysis in order to determine if decontamination was successful.

Lye or Lime

Pesticides amenable to treatment using lye or lime may be decontaminated when mixed with an excess quantity of either of these materials. These materials can be used in either the dry form or in solution. A 10% solution of lye or lime can be made as follows:

Mixing directions: Mix 0.75 pounds of lye or lime in 3.5 quarts of water to make 1 gallon of 10% solution.

Caution: Caustic soda (lye) can cause severe eye damage to persons not properly protected. Protect against contact by wearing unventilated goggles, long-sleeved work clothes with coveralls, neoprene gloves, and chemical-resistant apron. An approved respirator also should be worn. Do not use lye on aluminum surfaces.

Bleach Treatment. Certain pesticides can be degraded by treatment with bleach (sodium hypochlorite). Generally, one gallon of household bleach, which contains approximately 5 percent sodium hypochlorite, should be used per pound or gallon of pesticide spilled. If bleaching powder is used, first mix with water (one gallon of water per pound of bleach) and add a small amount of liquid detergent. For safety purposes, a preliminary test resulting from this test must be observed to make sure reaction is not too vigorous.

NOTE: Do not store near to, or mix chlorine bleach with, amine-containing pesticides. Co-mingling of these materials can cause a violent reaction resulting in fire. Calcium hypochlorite is not recommended as a decontaminating agent because of the fire hazard.

FACILITY 3600/ROOM 427-4 - BROOKE ARMY MEDICAL CENTER (BAMC) – CYTOLOGY LAB

Introduction

The BAMC Cytology Lab processes all cytology slides and tissue at BAMC.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 3600/Room 427-4	
BAMC Cytology Lab	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste ethanol (5 gallon container)	1000 lbs
Waste Formalin (5 gallon container)	5,000 lbs
Sulfuric Acid (5 gallon container)	
Safety precaution: Review appropriate MSDS for safety precautions.	
Probable spill route: Spills will enter floor drain which is routed to city sanitary sewer.	
Existing spill prevention provisions: Chemicals stored in secondary containment. Spill kit provided.	
Recommended spill prevention provisions: None	
Contingency action: Assure spill does not enter floor drain by placing plastic over drain and securing with weighted sorbent material. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Lab remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One spill kit containing absorbent pads, disposable bags, and neutralizing agents. Spill kit is located next to the SAS.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 3600/ROOM 428-6 - BAMC HISTOLOGY LAB

Introduction

The BAMC Histology Lab processes all histological specimens for BAMC. Additionally, slides of these specimens are developed in this area.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 3600/Room 428-6	
BAMC Histology Lab	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste alcohol, xylene (5 gallon container)	100 lbs
Waste formalin (5 gallon container)	5,000 lbs
Safety precaution: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Chemicals stored in flammable locker. Spill kit provided.	
Recommended spill prevention provisions: Purchase special drain cover, plug drain, or follow contingency action below.	
Probable spill route: Spills will enter floor drain which is routed to city sanitary sewer.	
Contingency action: Assure spill does not enter floor drain by placing plastic over drain and securing with weighted sorbent material. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Lab remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One spill kit containing absorbent pads, disposable bags, and neutralizing agents. Spill kit is located next to the SAS.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 3600- BAMC 90-DAY HAZARDOUS WASTE STORAGE AREA

Introduction

The BAMC 90-Day Hazardous Waste Storage Area stores hazardous waste accumulated at BAMC. The waste is stored in this area until it is transferred to Building 4055 Hazardous Waste Storage Area for disposal off of the facility.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 3600	
BAMC 90-day Hazardous Waste Storage Area	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste solvents (55 gallon drums)	100 lbs
Gasoline (55 gallon drums)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Chemicals stored in hazardous storage building. Spill kits provided.	
Recommended spill prevention provisions: None	
Probable spill route: Spills will be contained within hazardous materials storage building.	
Contingency action: Shut off ignition sources. Stay upwind and use a water spray to "knock down" vapors. Assure spills are contained within storage building. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis.	
Security: Storage building remains locked at all times.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Three 30-gallon drums containing absorbent material are located inside the hazardous storage lockers.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 3600/ROOM 420-2-BAMC CHEMISTRY LAB

Introduction

The BAMC Chemistry Lab processes all blood specimens received at BAMC.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 3600/Room 420-2	
BAMC Chemistry Lab	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste methanol (5 gallon container)	5000 lbs
Safety precaution: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Chemical stored in flammable locker	
Recommended spill prevention provisions: Purchase special drain cover, plug drain, or follow contingency action below.	
Probable spill route: Spills will be contained within flammable locker. Spills may occur during removal of waste, in which case they may enter floor drains and be discharged to city sanitary sewer.	
Contingency action: Assure spills are contained within locker. In the event a spill occurs outside of locker, contain spill within the most immediate area. Place plastic over floor drains and secure with a sand bag. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Locker remains unlocked at all times due to round-the-clock use.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One spill kit containing absorbent pads, disposable bags, and neutralizing agents. Spill kit is located next to the SAS.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 3600/ROOM 283-7 - BAMC PHOTO LAB

Introduction

The BAMC Photo Lab processes all photographs taken in conjunction with activities at BAMC.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 3600/Room 283-7	
BAMC Photo Lab	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste developer fixative (5 gallon containers) made up of Hydroquinone and 4-(Methylamino) Phenol Sulfate	100 lbs
Safety precaution: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: None	
Recommended spill prevention provisions: Purchase special drain cover, plug drain, or follow contingency action below.	
Probable spill route: Spill will enter floor drain which discharges to city sanitary sewer.	
Contingency action: Assure spill is contained within the most immediate area. Place plastic over floor drain and secure with weighted sorbent material. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Lab remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One spill kit containing absorbent pads, disposable bags, and neutralizing agents. Spill kit is located next to the SAS.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 3600/Room L30-6 and L30-13- MORGUE

Introduction

The BAMC Morgue is located in the basement of BAMC and is used for the storage and evaluation of cadavers.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 3600/Room L30-6 and L30-13	
BAMC Morgue	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Formaldehyde (1 gallon container)	100 lbs
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: None	
Recommended spill prevention provisions: Provide spill kit for facility.	
Probable spill route: Spills will be contained within storage locker or may occur during removal of product. Storage room has no floor drains.	
Contingency action: Shut off ignition sources. Assure spills are contained within the storage locker. In the event a spill occurs outside of locker, contain spill within the most immediate area. Place sorbent boom at bottom of doorway to prevent spreading to other areas of the building. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Storage room and locker remain locked at all times.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

No spill response equipment was observed at this location.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 3600/Room 193-10 - CLINICAL INVESTIGATION LAB

Introduction

The Clinical Investigation Lab performs research analysis for BAMC.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 3600/Room 193-10	
BAMC Clinical Investigation Labs	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste solvents (5 gallon container)	100 lbs
Various organic solvents (5 gallon container)	**
Various acids and bases (5 gallon container)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Chemicals stored in flammable lockers. Spill kit provided.	
Recommended spill prevention provisions: None	
Probable spill route: Spills will be contained within storage lockers. Lockers are located in storage rooms.	
Contingency action: Shut off ignition sources. Assure spill is contained within locker. In the event a spill occurs outside of locker, contain spill within the most immediate area using available vermiculite. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Storage room and lockers remain locked at all times.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One spill kit containing absorbent pads, disposable bags, and neutralizing agents. Spill kit is located next to the SAS.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 3882 – ROADS AND GROUNDS

Introduction

Roads and Grounds provides all maintenance and aesthetic services to Fort Sam Houston grounds. Additionally, all heavy equipment (as listed in Exhibit 4-5 of the ISCP) is stored at this location.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 3882	
Roads and Grounds	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste oil, contaminated gasoline (55 gallon drum)	**
Waste antifreeze (55 gallon drum)	5,000 lbs
MOGAS (55 gallon drum)	**
Paints and thinners (1 – 5 gallon containers)	100 lbs
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Spill kits provided. Waste materials are stored in hazardous storage buildings.	
Recommended spill prevention provisions: Install curbing around MOGAS container or provide other secondary containment. Provide additional spill kits.	
Probable spill route: Waste spills are collected in a container depressed in the ground, adjacent to the waste containment area. Product spills will go to surface drainage.	
Contingency action: Shut off ignition sources. Contain spills within the most immediate areas. Collect all spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Areas are visually inspected on a regular basis as a result of daily usage.	
Security: Area remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Two 30-gallon drums containing absorbent pads and absorbent “Pig Socks” are located inside the hazardous storage buildings.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 4050 – DIRECTORATE OF READINESS AND LOGISTIC CENTER (RLBC) GAS STATION

Introduction

RLBC Gas Station serves as a refueling point for government vehicles used at Fort Sam Houston.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 4050	
RLBC Gas Station	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
JP-8 Fuel – (4 - 10,000 gallon USTs)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: USTs are double-walled tanks.	
Recommended spill prevention provisions: None	
Probable spill route: UST spills will be contained within the double-walled secondary feature of the UST.	
Contingency action: Shut off ignition sources. See Section 5.2 of the ISCP for specific UST mitigation actions to be followed by the installation.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Facility is unmanned. Personnel need a access card to use facility.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

2. For small spills, contain the spill using on-site spill kits and notify IOSC.
3. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
4. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
5. Eliminate any ignition sources and quickly assess the spill and safety hazard;
6. Notify the IOSC at 221-4842;
7. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
8. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
9. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Two 55-gallon drums containing absorbent material are located next to the gas pumps.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 4055 – DIRECTORATE OF READINESS AND LOGISTIC CENTER (RLBC) MAINTENANCE

Introduction

RLBC Maintenance Facility conducts all service and maintenance on the vehicles. Additionally, a paint booth is located on the premise for paint operations.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 4055	
RLBC Maintenance	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste oil, hydraulic fluid, contaminated gasoline (55 gallon drums)	** 100 lbs
Paint-related waste (D001) (1- 5 gallon containers, aerosol cans)	**
Oils (55 gallon drum)	5,000 lbs
Fuel (5 gallon containers)	Contact installation HW coordinator
Antifreeze (55 gallon drum)	**
Sodium Iodate (1 – 2 gallon containers)	100 lbs
Formaldehyde (1 gallon containers)	**
Paint (5 gallon containers)	**
Paint Thinners (1 quart containers)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Chemicals are stored in flammable lockers or on secondary containment. Some chemicals are stored in storage building with concrete floor.	
Recommended spill prevention provisions: None	
Probable spill route: Spills will be contained within secondary containment building.	
Contingency action: For acid spills, stay upwind and use water spray to "knock down" vapors. Assure spills are contained within secondary containment building. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage. Rules are posted on the building.	
Security: Facility is locked during off-duty hours. Secondary containment storage building remains locked at all times.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

10. For small spills, contain the spill using on-site spill kits and notify IOSC.
11. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
12. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
13. Eliminate any ignition sources and quickly assess the spill and safety hazard;
14. Notify the IOSC at 221-4842;
15. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
16. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
17. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

Three 55-gallon drums containing absorbent material are located at various vehicle maintenance cells and in the paint booth. Four spill kits containing absorbent pads and disposable bags are located where hazardous materials are stored.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 4055- 90-DAY HAZARDOUS WASTE STORAGE

Introduction

Facility 4055 is the Hazardous Waste Storage Area for Fort Sam Houston. All outbound Hazardous Waste is segregated and stored in flammable storage buildings. The Hazardous Waste Storage Area is an unmanned facility. All hazardous waste dropped off at the facility must be coordinated through the DSEF Hazardous Waste Manager.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 4055	
90-day Hazardous Waste Storage Area	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Various hazardous wastes (e.g. acid/corrosive wastes, paint-related wastes, contaminated gasoline, x-ray fluid wastes, etc.) Various petroleum wastes (e.g. oils, degreasers, contaminated diesel, etc.) See Attached Table for Complete Listing of chemicals.	Contact installation HW Coordinator
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Drums are stored in storage building within concrete recess bays and in hazardous storage buildings. Spill kits are provided.	
Recommended spill prevention provisions: Verify all waste accepted at facility is detailed in the Fort Sam Waste Management Plan	
Probable spill route: Spills will be contained within hazardous waste storage building with secondary containment floor.	
Contingency action: Contain chemical spills within the most immediate area. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is formally inspected on a weekly basis. Inspection items include structure, security, containment, compatibility, aisle space, labeling, safety equipment and accumulation dates.	
Security: Facility remains locked at all times.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Table of Chemicals

	Chemical Name	Type of Container
Hazardous Waste Storage Building 003	Fluorescent tubes	Boxes
	Waste Flammable Liquid, Toxic	55-gallon drums
	Isopropanol, Hexane	55-gallon drums
	Butanol, Ethane	55-gallon drums
	Chloroform, Tetrachloroethane	30- gallon drums
	Methylene Chloride, Acetonitrile	30 gallon drums
	Ethyle Ether, Nitri Acid	30 gallon drums
	Waste Mercury	5 gallon drums
	Used Isopropanol	5 gallon drums
	Methanol solution 95% acetic 5%	5 gallon drums
Hazardous Waste Storage Building 004	Paint	55 gallon drums
	Petroleum Distillates	55 gallon drums
	Latex Paint	55 gallon drums
	Paint aerosol cans	55 gallon drums
	Used filters	55 gallon drums
	MOGAS	55 gallon drums
	Used dry Sweep	55 gallon drums
	Contaminated sand with POL	55 gallon drums
Hazardous Waste Storage Building 005	Used Diesel	5 gallon drums
	Refrigerant Oil	5 gallon drums
	Used filters containing lead	55 gallon drums
	Used Compressor Oil	55 gallon drums
	Paint	5 gallon drums
	Spray Cans	55 gallon drums
	Solvent	55 gallon drums
	Acid	55 gallon drums
Hazardous Waste Storage Building 009	Lead Acid Batteries	Pallet
	Lithium Batteries	55 gallon drums
	Waste Corrosive Liquid	55 gallon drums
	Ni-Cad Batteries	5 gallon drums
	Used Photo Fixture	5 gallon drums
	Halon	30 gallon drums
	Oily Rags	Fiber Drums
	Oily Rags	Box
	Cythion (Malathion)	5 gallon drums

Note: Reportable Quantities may be found in Appendix B.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC and the Hazardous Waste Storage Manager at 221-4842.
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Note: An emergency phone (210/221-0750) is located south of Hazardous Storage Building # 003. In the event of an emergency, personnel should use this phone to contact the IOSC at 221-4842.

Emergency Contact Information

Refer to Exhibit 3-1 and Exhibit 3-2 of the ISCP for a list of Emergency Contacts and phone numbers.

Emergency Equipment Located at Facility

A fire extinguisher is located inside each of the hazardous waste storage buildings. Refer to Section 4.0 of the ISCP for complete inventory available for use in the event of an emergency.

Note: An alarm system is present at each of the hazardous storage buildings. In accordance to 40 CFR 265.32, an internal communication system capable of providing immediate emergency instruction (voice or signal) to facility personnel should be used in the event of an emergency. A foghorn is located inside each building and shall be used in the event of an emergency. The DSEF will train personnel on the procedures for using the foghorn.

Spill Response Equipment Inventory and Location

Four 30-gallon drums containing absorbent pads and absorbent material are located inside each of the hazardous storage buildings.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 4168 – SELF HELP

Introduction

The Self Help facility is utilized by post residents and allows them to rent lawn equipment and purchase paint and pesticides for general maintenance for their quarters

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 4168	
Self-Help Store	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Paints/thinners (aerosol cans, 1 quart containers) Various household hazardous wastes (various sizes < 5 gallons) Pesticides (spray bottles) Pyrethrins (spray bottles)	** Contact installation HW coordinator
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: All chemicals stored inside building. No drains.	
Recommended spill prevention provisions: Provide spill kits.	
Probable spill route: Spills will be contained within the store. Store has no floor drains.	
Contingency action: See emergency procedures for pesticide spills	
Preventive maintenance: Area is visually inspected on a regular basis.	
Security: Store remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

No spill response equipment was observed at this facility.

Emergency Procedures For Pesticide Spills

When a pesticide spill occurs, specific procedures should be followed for providing first aid, notifying proper authorities, and cleaning up and decontaminating the spill area. Personnel working with pesticides or in areas containing pesticide chemicals should be adequately trained for quick evacuation and proper spill prevention and emergency procedures as follows:

A. Identification

Determine the pesticide involved in the spill incident. Information such as formulation, percent active ingredient, and manufacturer's name and address should be obtained.

B. Safety and First Aid

All persons working with pesticides should be well trained in basic first aid and evacuation procedures. It must be emphasized that when managing any spill the most immediate concern is for the health and well being of persons in and around the immediate spill area.

First aid kits and personal protective equipment should be maintained at pest control shops and storage areas and carried in pest control vehicles. In addition, the telephone numbers of the local medical unit and poison control center should be posted in visible locations and always carried by pest control personnel when on the job.

C. Care of Injured

It is recognized that pesticide spill emergencies will differ, but the immediate concern should be to minimize contamination of personnel. Although the sequence may vary, the following basic procedures should be accomplished as rapidly as possible. PRIOR TO ENTERING A CONTAMINATED AREA, DON PERSONAL PROTECTIVE EQUIPMENT (PPE).

1. Quickly assess the spill to determine if personnel are involved.
2. Eliminate all sources of ignition (e.g., pilot lights, electric motors, gasoline engines) in order to prevent the threat of fire or explosion from flammable vapors (if present).
3. If personnel are involved, the rescuer should quickly don necessary protective equipment and remove the injured to a safe location upwind from the spill. If the spill occurs in an enclosed area, doors and windows should be opened to enhance ventilation of the area.
4. If necessary, remove contaminated clothing from the victim and/or rescuer, then wash affected areas of the body with soap and water. Administer additional first aid as required by the symptoms/signs and label, which may include flushing contaminated eyes with clean water for 15 minutes.
5. Obtain medical assistance for injured or contaminated persons. NOTE: Do not leave injured or incapacitated persons alone. Always instruct someone to stay with them until proper medical assistance is provided or a physician has been informed of the incident.

D. Site Security

Secure the spill site from entry by unauthorized personnel by roping off the area and posting warning signs. The boundary should be set at a safe distance from the spill. If necessary, obtain assistance from the base/installation's police or security unit.

E. Containment and Control

Spilled pesticides must be contained at the original site of the spill. The pesticide must be prevented from entering storm drains, wells, water systems, ditches, and navigable waterways by following these procedures:

1. Don appropriate protective equipment from a spill kit or the pest control shop.
2. Prevent further leakage by repositioning the pesticide container.
3. Prevent the spill from spreading by trenching or encircling the area with a dike of sand, absorbent material or, as a last resort, soil or rags.
4. Cover the spill. If the spill is liquid, use an absorbent material appropriate to the type of material. If dry material, use a polyethylene or plastic tarpaulin and secure.
NOTE: use absorbent materials sparingly as they also must be disposed of as wastes.

F. Pesticide Spill Reporting

Not all pesticide spills warrant reporting to EPA or the Coast Guard. However, spills that involve pesticides equal to or exceeding the designated reportable quantity (RQ) specified in EPA's Clean Water Act list of hazardous substances and the Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances (see Appendix B for RQs of major pesticides) must be reported. All pesticide spills should be reported in accordance with each service's regulations (Air Force, AFR 19-8; Navy OPNAV Notice 5090.1A, Environmental Protection; Army, AR 200-1; Marine Corps, MCO P5090.2), and the base/installation's spill contingency instruction. Pesticide spills should be reported to the spill coordinator designated in the base/installation's spill contingency instruction. The coordinator in turn will report the spill to EPA or the Coast Guard, as required.

G. Cleanup

Adequate cleanup of spilled pesticides is essential in order to remove any health or environmental hazards. When cleaning up pesticide spills, it is advisable NOT TO WORK ALONE and to make sure the area is properly ventilated and that appropriate protective equipment is used by all personnel. Responses to incidental releases of hazardous

substances where the substance can be absorbed, neutralized, or otherwise controlled at the time or release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses. However, if the release is not an incidental release, only qualified, trained emergency personnel should undertake cleanup operations. Minimum initial training and refresher training requirements are specified in the Occupational Safety and Health Standards of 29 CFR 1910.120, as described in Section 6.7 of the SPCCP.

1. Dry spills (dusts, wettable powders, granular formulations) should be picked up in the following manner:
 - a. Immediately cover powders, dusts, or granular materials to prevent them from becoming airborne. This can be done by placing a polyethylene or plastic tarpaulin over the spilled material. Weight the ends of the tarp, especially the end facing into the wind. Begin cleanup operations by systematically rolling up the tarp while simultaneously sweeping up the spilled pesticide using a broom, shovel, or dust pan. While sweeping, avoid brisk movements in order to keep the dry pesticide from becoming airborne. If indoors, a cover may not be necessary. When practical, light sprinkling with water may be used instead of a cover.
 - b. Collect the pesticide and place in plastic or metal containers. Heavy-duty plastic bags should be used as a last resort as many pesticides may eat through the plastic bags. Properly secure and label the bags, identifying the pesticides and possible hazards. Set the bags aside for later disposal.
2. Liquid spills should be cleaned up by placing an appropriate absorbent material (floor-sweeping compound, sawdust, sand, etc.) over the spilled pesticide. Work the absorbent into the spill using a broom or other tool to force the absorbent into close contact with the spilled pesticide. Collect all spent absorbent material and place into a properly labeled leakproof container.
3. Depending upon the spilled substance, contaminated soil may have to be removed to depths where no detectable amounts of the substance are evident. Residues may need to be placed in properly labeled leakproof containers. For this determination, contact the installation hazardous waste coordinator.

H. Decontamination

Decontamination solutions can be used for decontaminating surfaces and materials where spills of dust, granular, wettable powder, or liquid pesticides have occurred. However, the bulk of the spilled pesticide should be cleaned up or removed before applying any

decontaminant. After cleaning up the bulk material, apply the appropriate decontamination solution and allow one to six hours reaction time before using an absorbent material.

Depending on the location of the spill and the pesticide spilled, chlorine bleach, caustic soda (lye, sodium hydroxide) or lime can be used to effectively decontaminate most spill areas. Many pesticides, especially the organophosphate pesticides, decompose when treated with lye or lime. Fewer pesticides are decomposed by bleach (sodium hypochlorite)

Dry decontaminants should be spread thinly and evenly over the spill area. Then, using a watering can, lightly sprinkle the area with water to activate the decontaminant. Liquid decontaminants should be premixed and applied with a watering can to the spill area. Decontaminants should be applied in amounts no greater than specified in Section J of this Appendix.

The preceding procedures must be repeated until all the spilled pesticide is removed. Clean all equipment used for spill cleanup with detergent and appropriate decontaminants. Collect all spent decontaminants and rinse water and place them in labeled leakproof containers. Clothing and gloves that cannot be decontaminated must be placed in leakproof containers for proper disposal. Depending on the particular surface, the following additional procedures may need to be accomplished as specified.

1. Nonporous surfaces should be washed with detergent and water. The appropriate decontamination solution should be thoroughly worked into the surface using a long-handled broom, scrub brush, or other equipment as needed. Then the decontamination solution is soaked up using absorbent material. The spent absorbent material is then placed into a labeled leakproof container for disposal.
2. Soil. If pesticide containers have leaked or if pesticides have been spilled on a soil surface, depending upon the spilled substance, contaminated soil may have to be removed to depths where no detectable amounts of the substance are evident. Residues may need to be placed in properly labeled leakproof containers.
3. Porous materials such as wood may not be adequately decontaminated. If contamination is great enough to warrant, they must be removed and replaced with comparable new materials.
4. Tools, vehicles, equipment and any contaminated metal or other nonporous objects can be readily decontaminated using detergent and the appropriate decontamination solution (refer to Section J). However, smaller quantities of the decontamination solution may be required.

The decontamination solution can be applied to contaminated equipment by soaking the equipment in a pail filled with solution or using a scrub brush. All tools and surfaces must be thoroughly rinsed with sparing amounts of clean water. All rinse water and spent decontamination solution should be collected in drip pans or other suitable containers and transferred to a properly labeled leakproof drum for disposal.

I. Disposal

All contaminated materials, including cloth, soil, wood, etc., that cannot be effectively decontaminated as described in this guide must be removed and placed in a sealed leakproof container. All containers must be properly labeled and transported in accordance with Department of Transportation (DOT) regulations by EPA-permitted hazardous waste haulers for disposal in a hazardous waste disposal facility (incinerator, landfill site, etc.) under current EPA or state permit. Information about specific disposal sites, container labeling, rinsing, and disposal is to be coordinated with FSH's hazardous waste coordinator on disposal procedures.

J. Pesticide Decontaminants

Depending on the particular pesticide, chlorine bleach, caustic soda (lye, sodium hydroxide) or lime can be used to decontaminate most spills. For other decontamination/degradation options, refer to the document Decontaminating Accidental Spills of Pesticides, National Agricultural Chemicals, October 1969, pp 8-9. Many pesticides, especially the organophosphate pesticides, decompose when treated with lye or lime. Fewer pesticides are decomposed by bleach (sodium hypochlorite). Other pesticides cannot be effectively decontaminated and should only be treated with detergent and water to help in removal. Some examples of common pesticides that can be decontaminated are listed below:

<u>Use Lye or Lime for:</u>	<u>Use Chlorine Bleach for:</u>	<u>Do not use any decontamination Chemicals for these pesticides:</u>
Atrazine	Calcium cyanamide	Alachlor
Propoxur	Calcium Cyanide	Chloramben
Captan	Chlorpyrifos	Chlordane and other
Carbaryl	Fonophos	Chlorinated hydrocarbons
Diazinon	Merphos	Diuron
Temephos	Lethane	2,4-D
Naled		Maneb
2,4,5-T		Methoxychlor
Malathion		Pentachlorophenol

Acephate
Sodium fluoride
TCA
Rotenone
Silvex
Cyanazine
Dalapon
Dichlorvos
Dimethoate
EPN

Picloram
Toxaphene
Trifluralin

USE

NOTE: Do not store near to, or mix chlorine bleach with, amine-containing pesticides. Co-mingling of these materials can cause a violent reaction resulting in fire. Calcium hypochlorite is not recommended as a decontaminating agent because of the fire hazard.

A practical guide for applying decontaminants is as follows:

<u>Percent Active Ingredient</u>	<u>Amount of Decontaminant needed</u>
1-10	Use an amount of decontaminant equal to the quantity of pesticide spilled.
11-79	Use an amount of decontaminant equal to 1.5 times the quantity of pesticide spilled.
80-100	The amount of decontaminant used should be equal to twice the quantity of spilled pesticide.

WARNING: There is a slight potential for creating toxic by-products when using these procedures. In critical situations, samples of affected components (soil, sediment, water, etc.) should be taken and sent to a laboratory for analysis in order to determine if decontamination was successful.

Lye or Lime

Pesticides amenable to treatment using lye or lime may be decontaminated when mixed with an excess quantity of either of these materials. These materials can be used in either the dry form or in solution. A 10% solution of lye or lime can be made as follows:

Mixing directions: Mix 0.75 pounds of lye or lime in 3.5 quarts of water to make 1 gallon of 10% solution.

Caution: Caustic soda (lye) can cause severe eye damage to persons not properly protected. Protect against contact by wearing unventilated goggles, long-sleeved work clothes with coveralls, neoprene gloves, and chemical-resistant apron. An approved respirator also should be worn. Do not use lye on aluminum surfaces.

Bleach Treatment. Certain pesticides can be degraded by treatment with bleach (sodium hypochlorite). Generally, one gallon of household bleach, which contains approximately 5 percent sodium hypochlorite, should be used per pound or gallon of pesticide spilled. If bleaching powder is used, first mix with water (one gallon of water per pound of bleach) and add a small amount of liquid detergent. For safety purposes, a preliminary test resulting from this test must be observed to make sure reaction is not too vigorous.

NOTE: Do not store near to, or mix chlorine bleach with, amine-containing pesticides. Co-mingling of these materials can cause a violent reaction resulting in fire. Calcium hypochlorite is not recommended as a decontaminating agent because of the fire hazard.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 4168 – PEST CONTROL SHOP

Introduction

The Pest Control Shop is a facility where herbicides and pesticides are stored for usage on FSH.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 4168	
Pest Control Shop	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Product Insecticides/Rodenticides/ Herbicides/Fungicides and wastes (various sizes ranging from 1 quart to 2 gallons):	Contact installation HW coordinator
Pyrethrins	1 lb
Propoxur	100 lbs
Chloroform	10 lbs
Malathion	100 lbs
Diazinon	1 lb
Diuron	100 lbs
Chlorpyrifos	1 lb
Methomyl	100 lbs
Warfarin	100 lbs
Pentachloro-nitrobenzene	100 lbs
Zinc phosphide	100 lbs
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: All chemicals are stored inside building. No drains.	
Recommended spill prevention provisions: Provide spill kits.	
Probable spill route: Spills will be contained within containment area and building.	
Contingency action: See emergency procedures for pesticide spills.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Storage room remains locked at all times.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

No spill response equipment was observed at this facility.

Emergency Procedures For Pesticide Spills

When a pesticide spill occurs, specific procedures should be followed for providing first aid, notifying proper authorities, and cleaning up and decontaminating the spill area. Personnel working with pesticides or in areas containing pesticide chemicals should be adequately trained for quick evacuation and proper spill prevention and emergency procedures as follows:

A. Identification

Determine the pesticide involved in the spill incident. Information such as formulation, percent active ingredient, and manufacturer's name and address should be obtained.

B. Safety and First Aid

All persons working with pesticides should be well trained in basic first aid and evacuation procedures. It must be emphasized that when managing any spill the most immediate concern is for the health and well being of persons in and around the immediate spill area.

First aid kits and personal protective equipment should be maintained at pest control shops and storage areas and carried in pest control vehicles. In addition, the telephone numbers of the local medical unit and poison control center should be posted in visible locations and always carried by pest control personnel when on the job.

C. Care of Injured

It is recognized that pesticide spill emergencies will differ, but the immediate concern should be to minimize contamination of personnel. Although the sequence may vary, the following basic procedures should be accomplished as rapidly as possible. PRIOR TO ENTERING A CONTAMINATED AREA, DON PERSONAL PROTECTIVE EQUIPMENT (PPE).

1. Quickly assess the spill to determine if personnel are involved.
2. Eliminate all sources of ignition (e.g., pilot lights, electric motors, gasoline engines) in order to prevent the threat of fire or explosion from flammable vapors (if present).
3. If personnel are involved, the rescuer should quickly don necessary protective equipment and remove the injured to a safe location upwind from the spill. If the spill occurs in an enclosed area, doors and windows should be opened to enhance ventilation of the area.
4. If necessary, remove contaminated clothing from the victim and/or rescuer, then wash affected areas of the body with soap and water. Administer additional first aid as required by the symptoms/signs and label, which may include flushing contaminated eyes with clean water for 15 minutes.
5. Obtain medical assistance for injured or contaminated persons. NOTE: Do not leave injured or incapacitated persons alone. Always instruct someone to stay with them until proper medical assistance is provided or a physician has been informed of the incident.

D. Site Security

Secure the spill site from entry by unauthorized personnel by roping off the area and posting warning signs. The boundary should be set at a safe distance from the spill. If necessary, obtain assistance from the base/installation's police or security unit.

E. Containment and Control

Spilled pesticides must be contained at the original site of the spill. The pesticide must be prevented from entering storm drains, wells, water systems, ditches, and navigable waterways by following these procedures:

1. Don appropriate protective equipment from a spill kit or the pest control shop.
2. Prevent further leakage by repositioning the pesticide container.
3. Prevent the spill from spreading by trenching or encircling the area with a dike of sand, absorbent material or, as a last resort, soil or rags.
4. Cover the spill. If the spill is liquid, use an absorbent material appropriate to the type of material. If dry material, use a polyethylene or plastic tarpaulin and secure.
NOTE: use absorbent materials sparingly as they also must be disposed of as wastes.

F. Pesticide Spill Reporting

Not all pesticide spills warrant reporting to EPA or the Coast Guard. However, spills that involve pesticides equal to or exceeding the designated reportable quantity (RQ) specified in EPA's Clean Water Act list of hazardous substances and the Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances (see Appendix B for RQs of major pesticides) must be reported. All pesticide spills should be reported in accordance with each service's regulations (Air Force, AFR 19-8; Navy OPNAV Notice 5090.1A, Environmental Protection; Army, AR 200-1; Marine Corps, MCO P5090.2), and the base/installation's spill contingency instruction. Pesticide spills should be reported to the spill coordinator designated in the base/installation's spill contingency instruction. The coordinator in turn will report the spill to EPA or the Coast Guard, as required.

G. Cleanup

Adequate cleanup of spilled pesticides is essential in order to remove any health or environmental hazards. When cleaning up pesticide spills, it is advisable NOT TO WORK ALONE and to make sure the area is properly ventilated and that appropriate protective equipment is used by all personnel. Responses to incidental releases of hazardous

substances where the substance can be absorbed, neutralized, or otherwise controlled at the time or release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses. However, if the release is not an incidental release, only qualified, trained emergency personnel should undertake cleanup operations. Minimum initial training and refresher training requirements are specified in the Occupational Safety and Health Standards of 29 CFR 1910.120, as described in Section 6.7 of the SPCCP.

1. Dry spills (dusts, wettable powders, granular formulations) should be picked up in the following manner:
 - a. Immediately cover powders, dusts, or granular materials to prevent them from becoming airborne. This can be done by placing a polyethylene or plastic tarpaulin over the spilled material. Weight the ends of the tarp, especially the end facing into the wind. Begin cleanup operations by systematically rolling up the tarp while simultaneously sweeping up the spilled pesticide using a broom, shovel, or dust pan. While sweeping, avoid brisk movements in order to keep the dry pesticide from becoming airborne. If indoors, a cover may not be necessary. When practical, light sprinkling with water may be used instead of a cover.
 - b. Collect the pesticide and place in plastic or metal containers. Heavy-duty plastic bags should be used as a last resort as many pesticides may eat through the plastic bags. Properly secure and label the bags, identifying the pesticides and possible hazards. Set the bags aside for later disposal.
2. Liquid spills should be cleaned up by placing an appropriate absorbent material (floor-sweeping compound, sawdust, sand, etc.) over the spilled pesticide. Work the absorbent into the spill using a broom or other tool to force the absorbent into close contact with the spilled pesticide. Collect all spent absorbent material and place into a properly labeled leakproof container.
3. Depending upon the spilled substance, contaminated soil may have to be removed to depths where no detectable amounts of the substance are evident. Residues may need to be placed in properly labeled leakproof containers. For this determination, contact the installation hazardous waste coordinator.

H. Decontamination

Decontamination solutions can be used for decontaminating surfaces and materials where spills of dust, granular, wettable powder, or liquid pesticides have occurred. However, the bulk of the spilled pesticide should be cleaned up or removed before applying any

decontaminant. After cleaning up the bulk material, apply the appropriate decontamination solution and allow one to six hours reaction time before using an absorbent material.

Depending on the location of the spill and the pesticide spilled, chlorine bleach, caustic soda (lye, sodium hydroxide) or lime can be used to effectively decontaminate most spill areas. Many pesticides, especially the organophosphate pesticides, decompose when treated with lye or lime. Fewer pesticides are decomposed by bleach (sodium hypochlorite)

Dry decontaminants should be spread thinly and evenly over the spill area. Then, using a watering can, lightly sprinkle the area with water to activate the decontaminant. Liquid decontaminants should be premixed and applied with a watering can to the spill area. Decontaminants should be applied in amounts no greater than specified in Section J of this Appendix.

The preceding procedures must be repeated until all the spilled pesticide is removed. Clean all equipment used for spill cleanup with detergent and appropriate decontaminants. Collect all spent decontaminants and rinse water and place them in labeled leakproof containers. Clothing and gloves that cannot be decontaminated must be placed in leakproof containers for proper disposal. Depending on the particular surface, the following additional procedures may need to be accomplished as specified.

1. Nonporous surfaces should be washed with detergent and water. The appropriate decontamination solution should be thoroughly worked into the surface using a long-handled broom, scrub brush, or other equipment as needed. Then the decontamination solution is soaked up using absorbent material. The spent absorbent material is then placed into a labeled leakproof container for disposal.
2. Soil. If pesticide containers have leaked or if pesticides have been spilled on a soil surface, depending upon the spilled substance, contaminated soil may have to be removed to depths where no detectable amounts of the substance are evident. Residues may need to be placed in properly labeled leakproof containers.
3. Porous materials such as wood may not be adequately decontaminated. If contamination is great enough to warrant, they must be removed and replaced with comparable new materials.
4. Tools, vehicles, equipment and any contaminated metal or other nonporous objects can be readily decontaminated using detergent and the appropriate decontamination solution (refer to Section J). However, smaller quantities of the decontamination solution may be required.

The decontamination solution can be applied to contaminated equipment by soaking the equipment in a pail filled with solution or using a scrub brush. All tools and surfaces must be thoroughly rinsed with sparing amounts of clean water. All rinse water and spent decontamination solution should be collected in drip pans or other suitable containers and transferred to a properly labeled leakproof drum for disposal.

I. Disposal

All contaminated materials, including cloth, soil, wood, etc., that cannot be effectively decontaminated as described in this guide must be removed and placed in a sealed leakproof container. All containers must be properly labeled and transported in accordance with Department of Transportation (DOT) regulations by EPA-permitted hazardous waste haulers for disposal in a hazardous waste disposal facility (incinerator, landfill site, etc.) under current EPA or state permit. Information about specific disposal sites, container labeling, rinsing, and disposal is to be coordinated with FSH's hazardous waste coordinator on disposal procedures.

J. Pesticide Decontaminants

Depending on the particular pesticide, chlorine bleach, caustic soda (lye, sodium hydroxide) or lime can be used to decontaminate most spills. For other decontamination/degradation options, refer to the document Decontaminating Accidental Spills of Pesticides, National Agricultural Chemicals, October 1969, pp 8-9. Many pesticides, especially the organophosphate pesticides, decompose when treated with lye or lime. Fewer pesticides are decomposed by bleach (sodium hypochlorite). Other pesticides cannot be effectively decontaminated and should only be treated with detergent and water to help in removal. Some examples of common pesticides that can be decontaminated are listed below:

<u>Use Lye or Lime for:</u>	<u>Use Chlorine Bleach for:</u>	<u>Do not use any decontamination Chemicals for these pesticides:</u>
Atrazine	Calcium cyanamide	Alachlor
Propoxur	Calcium Cyanide	Chloramben
Captan	Chlorpyrifos	Chlordane and other
Carbaryl	Fonophos	Chlorinated hydrocarbons
Diazinon	Merphos	Diuron
Temephos	Lethane	2,4-D
Naled		Maneb
2,4,5-T		Methoxychlor
Malathion		Pentachlorophenol

Acephate
Sodium fluoride
TCA
Rotenone
Silvex
Cyanazine
Dalapon
Dichlorvos
Dimethoate
EPN

Picloram
Toxaphene
Trifluralin

USE

NOTE: Do not store near to, or mix chlorine bleach with, amine-containing pesticides. Co-mingling of these materials can cause a violent reaction resulting in fire. Calcium hypochlorite is not recommended as a decontaminating agent because of the fire hazard.

A practical guide for applying decontaminants is as follows:

<u>Percent Active Ingredient</u>	<u>Amount of Decontaminant needed</u>
1-10	Use an amount of decontaminant equal to the quantity of pesticide spilled.
11-79	Use an amount of decontaminant equal to 1.5 times the quantity of pesticide spilled.
80-100	The amount of decontaminant used should be equal to twice the quantity of spilled pesticide.

WARNING: There is a slight potential for creating toxic by-products when using these procedures. In critical situations, samples of affected components (soil, sediment, water, etc.) should be taken and sent to a laboratory for analysis in order to determine if decontamination was successful.

Lye or Lime

Pesticides amenable to treatment using lye or lime may be decontaminated when mixed with an excess quantity of either of these materials. These materials can be used in either the dry form or in solution. A 10% solution of lye or lime can be made as follows:

Mixing directions: Mix 0.75 pounds of lye or lime in 3.5 quarts of water to make 1 gallon of 10% solution.

Caution: Caustic soda (lye) can cause severe eye damage to persons not properly protected. Protect against contact by wearing unventilated goggles, long-sleeved work clothes with coveralls, neoprene gloves, and chemical-resistant apron. An approved respirator also should be worn. Do not use lye on aluminum surfaces.

Bleach Treatment. Certain pesticides can be degraded by treatment with bleach (sodium hypochlorite). Generally, one gallon of household bleach, which contains approximately 5 percent sodium hypochlorite, should be used per pound or gallon of pesticide spilled. If bleaching powder is used, first mix with water (one gallon of water per pound of bleach) and add a small amount of liquid detergent. For safety purposes, a preliminary test resulting from this test must be observed to make sure reaction is not too vigorous.

NOTE: Do not store near to, or mix chlorine bleach with, amine-containing pesticides. Co-mingling of these materials can cause a violent reaction resulting in fire. Calcium hypochlorite is not recommended as a decontaminating agent because of the fire hazard.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 4192- ARMY AIR FORCE EXCHANGE SERVICES (AAFES) WAREHOUSE AND TRAINING SUPPORT CENTER (RLBC)

Introduction

Facility 4192 provides storage to merchandise, promotional products, and storage for the Fort Sam Houston AAFES store.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 4192	
AAFES Warehouse	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Paints/thinners (aerosol cans, 2 gallon containers, 1 gallon containers)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Containers are stored indoors and in flammable locker. Spill kit provided.	
Recommended spill prevention provisions: None	
Probable spill route: Spills would be contained within a flammable storage cabinet.	
Contingency action: Shut off ignition sources. Assure spills are contained within the cabinet. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Facility remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One spill kit containing absorbent pads and disposable bags. Spill kit is located next to paint storage locker.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 4197 – REFRIGERATION/HEATING, VENTILATION, and Air Conditioning (HVAC)

Introduction

Facility 4197 is host to the Refrigeration and HVAC unit of Fort Sam Houston.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 4197	
Refrigeration	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste oil (5 gallon containers)	**
Mineral spirits (30 gallon drum)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: None	
Recommended spill prevention provisions: Provide spill kit.	
Probable spill route: Oil spills will be contained within shop area. Mineral spirits parts washer unit is located inside curbed area near a floor drain. Spills will enter drain and be discharged to the city sanitary sewer.	
Contingency action: Shut off ignition sources. Assure spills are contained within the most immediate area. For mineral spirits spills, cover floor drain with plastic and secure with weighted sorbent material. Collect spilled waste and contaminated materials in lined drum.	
Preventive maintenance: Area is visually inspected on a regular basis as a result of daily usage.	
Security: Facility remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

No spill response equipment was observed at this facility.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.

FACILITY 4209 – 217TH MAINTENANCE

Introduction

The 217th Maintenance Squadron conducts routine maintenance on tactical vehicles, such as oil changes, adding antifreeze, and fuel filter changes.

Spill Potential

The following table lists the HAZMAT (POL's, HS's, HW's, UST's, AST's, and SAS's) stored at the facility, where applicable; safety precautions necessary when handling the HAZMAT materials; the probable spill route, existing spill prevention provisions, recommended spill prevention provisions, contingency action, preventive maintenance, and security.

FACILITY 4209	
217 th Maintenance	
<u>Chemical</u>	<u>Reportable Spill Quantity*</u>
Waste transmission fluid (5 gallon container) , contaminated gasoline and diesel fuel (55 gallon drums)	**
Oils, hydraulic fluid, mineral spirits (55 gallon drums)	**
Antifreeze (55 gallon drums)	1000 lbs
Waste oil (55 gallon drums)	**
Safety precautions: Review appropriate MSDS for safety precautions.	
Existing spill prevention provisions: Spill kit provided.	
Recommended spill prevention provisions: Provide additional spill kits.	
Probable spill route: Waste spills will be contained within the storage building. If spills of waste material occur during removal, they may enter nearby trench which is routed to city sanitary sewer. Product spills will occur inside the service bay and may also enter nearby trench. Waste oil spills will be contained within the double-walled secondary containment feature.	
Contingency action: Spilled substance should be contained within the most immediate area to prevent entrance to trench. This can be accomplished by covering applicable trench areas with plastic and securing with sand bags. Sorbent materials should be used for clean-up.	
Preventive maintenance: Areas are visually inspected on a regular basis as a result of daily usage.	
Security: Facility remains locked during off-duty hours.	

* The IOSC must be notified of all incidents involving a spill of any quantity.

** 25 gallons or any instance where a spill causes a sheen on surface water.

Notification Procedures/Clean-up Procedures

Each facility handling HAZMAT materials should review these procedures and implement these procedures in the event of a spill.

1. For small spills, contain the spill using on-site spill kits and notify IOSC.
2. For large spills which exceed the capacity of the local site spill kits, ensure personnel safety by wearing proper personal protective clothing, barricading off the spill site, or evacuating the area, if necessary;
3. Notify the IIRT (Fire Department) at 221-2727 to report the release as soon as the cleanup is complete or it is determined that the spill is too large to contain and provide the following information:
 - a) Name, office symbol, and phone number of the individual reporting the release;
 - b) Organization (office symbol), responsible for the release, a point of contact, and phone number;
 - c) Date, time and location of release;
 - d) Name, stock number, manufacturer, and amount of chemical material spilled;
 - e) Source and cause of release;
 - f) Environment the spill entered (ground, air, water, sewer line, confined within building); and
 - g) Cleanup action taken and amount of material recovered.
4. Eliminate any ignition sources and quickly assess the spill and safety hazard;
5. Notify the IOSC at 221-4842;
6. If safe, stop the source of the spill (i.e. shut down pumps, close valves, etc.);
7. Initial spill control: construct berms, apply absorbent materials, block sewer drains, etc.; and
8. Cleanup and remediation as appropriate.

Spill Response Equipment Inventory and Location

One 30 gallon drum containing absorbent material is located next to the hazardous waste storage area.

Evacuation Procedures

If a spill could potentially endanger the health of personnel in the vicinity of a spill, evacuation of the area will be initiated. Evacuation of personnel shall be through the nearest exit upwind and away from the spill area. Prior to evacuation, employees should quickly shut down their operations and secure their equipment, if there is time to safely do so. Once outside the facility at a safe distance from the spill, shop personnel will assemble with their supervisor for roll call and further instructions.